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For the American Farmer.

The Wheat Crop of the United States.

BY HON. C. P. HOLCOMB, OF DELAWARE.

A short wheat crop in England, Mr. Webster says, affects the exchanges of the civilized world. In the vast increase of population in the absence of long wars and famines, the importance of this staple is constantly increasing. Its cultivation is the most attractive and pleasant of all descriptions of husbandry, and its rewards are generally remunerating, when the soil and climate are favorable, and markets are not too distant.

It is important to know what our relation is to this staple of the world, and what is, and what is likely to be, our contribution to the great aggregate of production. Beyond feeding our own great and rapidly increasing population, it probably will not soon if ever be very great. It is a mistake, I apprehend, to suppose our country is naturally a great wheat producing country. The wheat district, at present, in comparison to the whole extent of our territory, is limited. It is confined, so far as any appreciable amount is grown, to about ten degrees of latitude, and twenty degrees of longitude, and embracing about one half the number of the States. The crop of 1848 is estimated by the Commissioner of Patents, at one hundred and twenty-six millions, and our population at twenty-two millions. This gives a less number of bushels, per head, to our population than the consumption of Great Britian, which is generally set down at one hundred and sixty millions, or six bushels to each inhabitant. But with us, Indian corn is a great substitute; so are potatoes and oats in Ireland and Scotland. Still our consumption of wheat, including the black population, is undoubtedly less, per head, than theirs. But in the absence of any certain data, to ascertain either the actual production, or our consumption, our only safe course is to take the actual excess, or the amount exported, after supplying our own wants. This, for the fiscal year 1848, being the crop of 1847, amounted, in flour and wheat, to twelve millions two hundred and ninety-four thousand one hundred and seventy-five bushels, although Mr. Burke's figures would shew a surplus of some forty millions! That there was not, and never has been any such *surplus* in the country is very evident, for the foreign demand was all the time good, and drew away all we had to part with.

The crop of 1848 was, undoubtedly, one of the best and largest we have ever grown; yet I have ascertained, by application at the Register's office, that the exports for the fiscal year 1849, amounted, in wheat, to but 1,527,534 bushels, and in flour to 2,108,013 barrels, or less by 226,676 bushels than the exports of 1848. Twelve millions is comparatively a small surplus in a favorable season, for a country with a population of twenty-two millions of inhabitants. The loss of a small per cent., in an unfavorable season, would at once sink this excess.

There is in this connection, just now, another important matter to be considered. According to Professor Tucker, of the University of Virginia, in his work on the *Progress of Population and Wealth in the United States*, the emigration to the country, from 1800 to 1840, amounted to about one million. The arrivals at New York alone, in the first eleven months of this year, were two hundred and thirty thousand four hundred and thirty-three, almost equal to *one-fourth* the number that came in the preceding *forty years*. I have endeavored to obtain the arrivals at other ports, and the aggregate within the last four years, but my correspondents have not responded in time. But the number this year, will probably be found to be little, if any, less than four hundred thousand persons!

A single year brings to our shores, a number equalling the annual increase of the population of England, which Mr. Colman puts at four hundred thousand, or a number more than equal to the population of the largest city in the Union, and all are to be fed on wheaten bread, for as to Indian, "they'll none of it." An additional two or three million bushels of wheat, finds a *certain* market in feeding this "grand army." But it may be said, that these masses, thus annually rolling upon our shores—a stream that seems to be exhaustless, pouring on and swelling with a constantly increasing volume and current, soon, on their arrival, become themselves producers. To some extent they do, but by far the largest portion of them go into our towns and manufacturing villages, and upon our public works.

According to some, our population, without reference to this *mass*-emigration, is likely to double within the next twenty-five years. Suppose the production to be one hundred and twenty-six mil-

lions, which is undoubtedly a high estimate, and our consumption and seed to be now one hundred millions, we shall have to increase the crop seventy-four millions by 1874, an amount falling but about ten millions short of the whole produce of the country as exhibited by the census of 1840.

Again, our last census exhibited the striking, and to many, surprising fact of the concentrating of our population into towns and villages, the disproportionate increase of these over the rural districts. In some of the States, the *only* increase was in the towns, as in Rhode Island, Connecticut, Delaware, and Maryland. 'In Massachusetts more than half the increase took place in the nine principal towns. Even in the great Agricultural State of New York, the whole increase was twenty-seven per cent; in the fourteen largest towns, sixty-four and a half per cent; in the State, exclusive of these towns, but nineteen per cent. In Pennsylvania, the gain in nine towns, thirty-nine and a quarter per cent; in the State, but twenty-one and three quarter per cent. In Ohio the fifteen largest towns increased one hundred and thirty-eight per cent, the State but sixty-two per cent.'—(*Macgregor's Progress of America,*) *&c.* The approaching census will undoubtedly show a still larger proportionateincrease in the towns and villages.

It is notorious that *farm* laborers do not seem to increase; they are every where scarce, and the demand for their labor in the towns and manufacturing villages enable them to command high wages. Farmers can with difficulty obtain sufficient laboring men, or servant women for their kitchens, notwithstanding the almost half million of arrivals! A portion certainly go to the west and clear up farms, but not a number, one half or one tenth, sufficient to supply at first, those who go to the cities, manufacturing villages, and upon the public works. The inference is, that any small surplus of wheat we may raise, or any probable augmentation of the crop, will be consumed by these additional *customers* of the farmer, and our otherwise rapidly increasing population.

Let us now notice more in detail, the different sections of our country as adapted to the growth of wheat.

The New England States, some of them aided in their recent enterprises by bounties offered by the State Governments, have failed to insure such success as is likely to encourage them to continue the culture of wheat; or at all events, to induce them to aim at increasing their product to any considerable extent, since, as one of their own farmers candidly states, "the attempt to grow a crop of wheat is an experiment."

The States south of North Carolina, and inclusive of a part of this state, have never heretofore succeeded in growing wheat to any considerable extent, though there were periods in their history—before the general introduction of the culture of cotton—when, if it had been practicable to make this cereal one of their staples, they would certainly have done so. Besides the common dangers from rust, and blight, the fly, and sometimes the frost—as the past season—they have a most formidable enemy in the wevil. In upper Georgia, in the Cherokee country in particular, wheat will probably be cultivated to some extent, and a limited cultivation of it by the planters for their own use, will probably continue in several of the Southern States. But the Cotton, Rice, and Sugar States, like the manufacturing States of New England, will not soon, if ever, add much to the supply of wheat, the rich staples of the former, and the varied husbandry and grazing of the latter, suited to supply the immediate wants of a manufacturing population, will be likely to receive their attention in preference.

Kentucky and Tennessee, though their Agricultural history dates back beyond the settlement of the North-western States, have already been outstripped by at least two of them. In neither of these States has the culture of wheat ever been put forward, and regarded as one of their best staples, or as very favorably adapted to their soil and climate. Still, notwithstanding the formidable danger from rust, the production of Tennessee is estimated to be equal to nine bushels to each person,—and Kentucky about seven and a half bushels. Missouri may be classed with Kentucky and Tennessee, which she much resembles in soil, climate, and productions, except that she raises much less wheat than either, her crop being placed by the Commissioner of Patents at only two millions, or less than four bushels to each resident of the State.

But besides that the experience of the past, discourages the idea that these fine States are likely to become great wheat producing States, the fact that the staple of cotton may be cultivated over a considerable portion of one of them, and that hemp and tobacco are among the valuable products of the other two; that Tennessee is the very largest corn producing State in the Union, showing her soil and climate are particularly adapted to this description of grain, and that Kentucky and Missouri are unsurpassed as grazing countries, and there is little ground to suppose that any change in their husbandry will very greatly or suddenly augment the production of wheat.

Let us come now to the States of Indiana, Illinois, Wisconsin and Iowa, and that *fabulous* wheat District or Territory to the west of these again, from which, according to the vaticinations of some, may be drawn supplies of wheat to feed the population of both Europe and America, or fill warehouses that would sustain our people through a longer famine than that which afflicted the people of Egypt! I cannot help thinking that, to some extent, this generally fertile district of country has, so far as the production of wheat is concerned, been "shouted forth in acclamations hyperbolical." My own impression in regard to it, is, including the States last named, derived, in part, from observation, from intercourse and correspondence with intelligent agriculturists of these States, and from a careful examination of a geological survey of two of them, that the soil and climate of this whole district of country is *not* particularly favorable to the production of wheat. The popular idea I know to be otherwise. I am not going to dwell upon it, or to examine the subject at any length. There is a single remark that may help to explain the reputation that has gone abroad in reference to the wheat-producing qualities of these lands. The prairie sod, when first broke up, generally produces wheat well, often most abundantly, provided it escapes the rust, insect, &c. But, when this ground has been much furrowed, becomes completely pulverized by exposure to the atmosphere, the light and friable mould, of which most of it is composed, drenched, as a good deal of it is, at times, with surface water, fails to hold or sustain the roots of the plants, it is thrown out, or winter-killed; and "winter-killed," "winter-killed," "winter-killed," we all know, is among the catalogue of disasters that almost annually reach

us. Sometimes, when escaping the winter, the high winds of spring blow this light soil from the roots, exposing them to such an extent, that, in a dry time in particular, the wheat often perishes. When breaking up fresh prairies, there was much encouragement and promise of hope, but which, I believe, has not been, nor is likely to be, realized by their husbandmen in the degree that early experiments induced them to look for.

As appears by the last report of the Commissioner of Patents, the crop of Illinois, in reference to population and production, is below that of Kentucky, and both Indiana and Illinois is below that of Tennessee. The crop of Indiana is set down at 8,500,000, her population at 1,000,000, or equal to 8½ bushels ahead. The production of Illinois is stated at 5.400,-000, her population at 800,000, or less than 7 bushels to each inhabitant—and both these "fair and fertile plains" are still farther behind the old "battoned moors" of Maryland and Virginia.

Much of their wheat too, is spring wheat, sown often on land where the fall crop had winter-killed, increasing the number of bushels much more than the value of the crop. I have heard it estimated that full one-third of all the wheat shipped from Chicago was of this description. Chicago is their great wheat depot. Several millions of bushels are shipped from this point, *the contributions from parts of three States*, Wisconsin, Indiana and Illinois, and which concentration of their joint product at this new western city, or something else, seems to have imparted to each and all these States, the reputation of great wheat growing States, though they are in fact, with the advantage of a virgin soil, behind several of the Western States, and two at least of the Eastern or Atlantic States.

The geological explorations of the Hon. Robert Dale Owen, undertaken under the authority of Congress, throws much light on the character of the soil of Wisconsin and Iowa, and the description given undoubtedly characterizes much of that region of country. The specific gravity of the soil, Mr. Owen states to be remarkably *light*—but what he represents to be "a striking feature in the character of the Iowa and Wisconsin soils, is the *entire absence in most of the specimens, of clay, and the large proportion of silex.*" Again he speaks of their being particularly adapted to the growth of the sugar beet, which he truly says, "flourishes best in a *loose fertile mould.*" Again he 'detected no phosphates; but they might be there, as the *virgin* soil produced good wheat.' So does the virgin soil of most of the prairie land.—"The soil was rich in geine," &c. But I submit that this does not describe a *wheat soil*, hardly in any one particular. *Liebig* tells us, that "however great the proportion of *humus* in a soil, it does not necessarily follow it will produce wheat"—and cites the country of Brazil.

Again he adds, "how does it happen that wheat does not flourish on a sandy soil? (which much of the soil of these States is described to be,) and that a calcareous soil is also unsuitable to its growth, unless it be mixed with a considerable quantity of clay."

The late Mr. Colman, in his *European Agriculture*, states, that "the soil preferred for wheat [in England] is a strong soil with a large proportion of clay."

But the question after all is, not whether these States cannot grow wheat, and in comparatively large quantities, for we know that while their lands are fresh they can and do—but whether, considering the hazard of the crop from winter-killing, the rust, the fly,—the risk from the two former being equal to a large per cent. premium of insurance, they are not likely to find their interest in grazing, in raising and feeding stock, instead of attempting to extend their wheat husbandry. Lord Brougham has said that grazing countries are always the most prosperous, and their population the most contented and happy. The meat markets of Great Britain are likely to prove better and more stable for us, than their grain markets.

The Hon. *Henry L. Ellsworth*, a distinguished citizen and large farmer of Indiana,—distinguished throughout the Union for his zeal in the cause of Agriculture—thus expresses himself on this subject:

"After a full consideration of the subject, I am satisfied that stock raising at the West is much more profitable than raising grain. Indeed, an examination of the North-western States, shews a vast difference in the wealth of the grazier over those who crop with grain. The profits of wheat appear well in expectation on paper—but the prospect is blasted by a severe winter, appearance of insects, bad weather in harvesting, in threshing, for there are but few barns at the West, or transporting to market, or last, a fluctuation in the market itself."

Such is the opinion of Mr. Ellsworth, the result of observation and experience, himself largely interested in ascertaining the safest and surest course to be pursued. The destiny he has indicated for this beautiful fertile region of country, will undoubtedly be fulfilled,—it will become a great pastoral, stock raising and stock feeding country.

Ohio stands now as she did at the census of 1840, at the head of all the wheat States, in the aggregate of production; her crop of 1848, being estimated at 20,000,000, which is about equal to 10½ bushels per head of her population. The geological survey of this State, and the character of the soil, as described in the Reports of the Board of Agriculture, in a large range of her counties, as "a clayey soil," "clayey loam," "clay subsoil," &c., shews Ohio to possess a fine natural wheat soil, if indeed, after thirty years of a generally successful wheat husbandry, such additional testimony or confirmation was necessary. I am not in possession of all the reports of her Board of Agriculture, but if I mistake not it was stated in one of them, that Ohio had already reached her maximum of production, until an improved husbandry should be introduced to advance it still further.

Michigan has also been successful in the cultivation of wheat. Her Burr Oak openings are unsurpassed in producing wheat; they are intervening ridges between low grounds or marshes and bodies of water, and their location not generally considered very healthy. A doubt has also been suggested as to whether this soil, being a clayey loam resting on a sandy and gravelly subsoil, is likely to wear as well as some other portions of the fertile soil of the State. The Commissioner of Patents puts her crop for 1848 at 10,000,000 of bushels, which is equal to 23½ bushels to each inhabitant! By the census of 1840, the population of Michigan was 212,267; number of bushels of wheat, 2,157,108. Her population in 1848 is estimated at 412,000. While she has barely doubled her population, she has according to the above estimate more than *quadrupled* her production of wheat—increased it at the rate of about one million of bushels a year for eihgt consecutive years, making the quantity she grows to each head of her population *more than double* that of any State in the Union. This *may* all be so, but we shall soon have the *record*, the census of 1850;

that will be more reliable than the estimates of our sanguine friends; we must call for the record, it will be more satisfactory than the *cyphering*.

Michigan has probably more to fear from the winter than Ohio; and in reference to all of the States west of the Alleghany, the contingencies attending the crop from winter-killing, and rust in particular, are much greater than on the Atlantic slope. The cause with them too, is atmospheric, and the elements may not be controlled, and no decided amelioration may perhaps be expected, varying, however, as the seasons are more or less favorable, from year to year. While we are not altogether safe from peril from the same causes, the danger is much less. The fly of late in our Atlantic wheat States, is regarded as our worst enemy. But the fly has its enemies which may overtake and destroy it; or a change of seed is sometimes a preventive, while high cultivation insures to a certain extent against its more serious ravages.

We can at least say, and appeal to the past history of the country to show it, that for a period of more than one hundred years, the supply of the Atlantic wheat States has generally been constant, and for most part abundant. They have furnishnd the 'staff of life' to several generations of men, and cotemporary with it, an annual amount for export that materially assisted in regulating the exchanges of the country.

Yet are these *nursing mothers* of the old thirteen thus *flatteringly* noticed by one of the "commercial writers," and which is copied into Macgregor's work on this country:

"In all the old wheat districts of Delaware, Maryland and Virginia, the land is all so completely exhausted by continued cropping, that it must be abandoned for years, until restored to vigor by the recuperative powers of nature, or transferred to another population better qualified to recover it by art and industry."

Not a single *biscuit* it will be seen is to be expected from us! The eyes of this commercial writer were evidently 'westward ho'! The "Great West" would have to grow the wheat, for she could grow corn, and fat hogs, and could surely furnish the *bread* as well as the *meat*—provide the whole bill of fare!

But however this writer may have reasoned, possibly he had in view and was dazzled as some others seem to have been by the Chicago wheat granaries—but however he may have reasoned, had he taken the trouble to have informed himself, he would have ascertained that *two* out of the three of these thus 'disfranchised' States, were at the time this statement was made, (1842,) excelled but by *two* other States in the Union in the production of wheat, in the ratio of production to population. The crop of Virginia is set down in 1838 at 12,250,000, her population 1,295,000, which is equal to nearly 10 bushels to each inhabitant, while the crop of Maryland is estimated at 5,150,000, her population 510,000, the ratio being a little over 10 bushels a head. In Delaware it is about 7 bushels, and I repeat, that even taking the joint production of the three States and their aggregate population, and Michigan and Ohio alone excel them as wheat growing States. So much for the opinions and views of men who set in their counting houses and write about "The Crops."

In an interesting "Report on the Breadstuffs of the United States," dated at Ruters' College, by Lewis C. Beck, M. D. that appears in the last Patent Office Report, the wheat district of the country is also map'd or indicated as lying to the west. But Dr. Beck includes *western* New York and *western* Pennsylvania, and very properly, but why not *eastern* New York and *eastern* Pennsylvania? for the crop of N. York is 15,500,000, or 5½ bushels to each person, the crop of Pennsylvania 15,000,000, or 6 bushels to each inhabitant, while a large portion of their population are engaged in commerce, manufactures and the mines.

That our land, particularly in the lower wheat States, has been hard cropped, there is no doubt; that much of it requires renovation, there is as little doubt, and just as little that the farmers of Delaware, Maryland and Virginia, are engaged in *earnest* in effecting this change. They have at their command the powerful fertilizing agents, *Lime* and *Marl*. They are applying one or both of these in *immense quantities* to whole districts of country. New Jersey and North Carolina, though neither of them large wheat producing States—but in North Carolina the quantity is very much increasing—are participating in these efforts at improvement. The concentrated manures, particularly guano, find now a ready and large market throughout our whole section of country; and I do not agree, every thing considered, soil, climate, markets, price of land, that the west, or *any portion of the west*, has any great advantage over us, in fact any advantage at all; and such *exclusive* claims as are set up for her, so far as wheat husbandry is concerned, I believe to be unfounded, and that our wheat fields will be the last place we shall be driven from. Still nobody under estimates the teeming prolific West. Let her hang out her cornucopiæ, it is her just emblem. But let it be understood that we of the *old thirteen* expect still to *raise our grist for the mill*, and possibly with the smiles of a kind Providence upon us, may have a few *bakings to spare*. We neither expect our "completely exhausted lands will be abandoned for years," nor do we consent to be *ostracised* from them by commercial writers, that they may be "transferred to another population better qualified by art and industry to improve them."

But it is never in good taste to talk too much of ourselves, and boast too much of what we are and what we can do. I prefer letting a western agriculturist speak for us. No man is perhaps better informed on the agricultural resources of this country than Solon Robinson; no one knows the country better, or I believe so well, for in his zeal in the cause there is little of it he has not explored and *personally* examined; while no man is more independent, candid, and fearless in expressing his opinions, affect whom they may. Mr. *Robinson* in speaking of the wheat crop and wheat district recently said:

"In Southern Indiana, Illinois, all of Kentucky, Tennessee and Northern Missouri, it is affected by the rust. It is the most precarious crop in the West, and altogether unsafe for the farmer to rely on. Grazing is likely to engage the farmers of the West. I consider *Delaware*, *Maryland* and *Virginia* the best wheat States in the Union. I saw one thousand acres of wheat in Virginia, last season, better than any one thousand I ever saw in the West. *Lime*, *plaster* and *clover* will bring wheat on any of the exhausted lands of these States, and make it a more reliable crop than in any of the Western States."

This opinion of Mr. Robinson should encourage our farmers to renewed efforts. It is more with this view, I hardly need say, than to defend against any attack from any quarter, or to try any issue be-

tween the old wheat States and the new, that the opinions of these Western gentlemen, Mr. *Ellsworth* and Mr. *Robinson*, are cited. All the wheat fields, and all the grazing pastures, are alike within the borders of our happy country, and her husbandmen and graziers are brethren of one family. Let us, then, in this spirit of a generous emulation, press forward. A portion of the West may, in this spirited race, have a little the *heels* of us, but the *old nags* will be sure to come up to the *score*; they'll pay no *forfeit;* and it will be time enough when the race is run to say who wins, who's beaten, and who has been distanced.

But the encouragement to all is great, for the demand must go on rapidly increasing; and it is only by an improved husbandry that it will be adequately supplied. The foreign market, on the terms it can now be reached, is of great value to us, as generally receiving any surplus we may have to spare at remunerating prices; but it is not always this will be on hand; and I venture to predict that the *present* will be found to be one of those years, as I agree with one of our most intelligent and best informed Brandywine millers, Mr. Lee, "that the price of wheat and flour will have to advance to the point of preventing any considerable exports, or, before next harvest, it will be found we are short, and the price will go up very much."

C. P. Holcomb.

New Castle, Del., Dec. 15, 1849.

For the American Farmer.

[The following Essay was offered in competition for the Prize of a piece of Plate, valued at $30, and particularly referred to by the committee appointed to examine the same.]

On the Culture of Tobacco.

BY SILAS B. JONES, ESQ., OF FLUVANNA CO. VA.

The soil best suited to the growth and perfection of the tobacco plant, on which to grow manufacturing or chewing tobacco, is new ground, or second year's land, of a *dark grey texture*. About one-third part of the county of Fluvanna, State of Virginia, has a soil of the above description, and has the reputation, in the Richmond market, of producing the finest chewing tobacco in the world. This being the case, I have concluded to send a brief account of our management of the "*weed*," in these "*diggins*," to the editor of the American Farmer, to be disposed of by him as he may think best for the interest of tobacco growers. By this remark, I would not wish it to be understood that I do not wish those gentlemen who have been appointed judges of the best essay on the culture of tobacco to pass upon the merits of this paper; not at all. I wish them to read what I have to say on the subject, and if, in their opinion, I am not entitled to the premium, I shall enjoy the satisfaction of doing what I could to merit it.

The soil best suited for plant beds should be *rich*, and tolerably moist; virgin soil is best. The best location for plant beds is on creek or branch lands, or on southern or eastern acclivities, protected on the north and west by forest trees from cold and drying winds. Plant beds in the woods, away from the plantations, are rarely, if ever, infested with insects. The land assigned for plant beds, for any year, should be burned and prepared some time between the 1st of January and 20th February, as the best time, though earlier and later will sometimes succeed well. As soon, therefore, after the first of January, as the land is in good order—and by this, I mean not too wet or frozen—clear off the leaves, lay down small poles or skids, about 3 inches in diameter; across these skids lay down a row of wood and brush, about two yards wide, on the upper or highest part of the land, and then fire it all along from one end to the other. As soon as the land is sufficiently burned, which will be in about one hour, and may be known to be the case by the skids under the wood being consumed, that is, if the wood and skids are of seasoned wood, which they should be, though either will do, the fire must then be pulled or moved by long hooks, cut in the woods, from the tops of trees, or hooks made of iron, and fastened to long handles, and spread about two yards; and then fill up with wood and brush, and so on, till the bed is burned over. Another method of burning plant beds is, to pack them with dry brush, in an erect position, as closely as possible, till the whole plant bed is covered over; then set fire to the whole, and it will burn off immediately. This method has the advantage of the first plan named, in the fact that it takes less labor, less wood and less time, and is known to answer as good a purpose. After the land is burned, as soon as the fire dies out sufficiently to go upon, proceed to hoe up the bed, with grub hoes, breaking the land some 3 or 4 inches deep, taking care not to turn the land top side down; then chop fine, with broad hoes, and rake off the roots with hand rakes; continue to chop and rake till the bed is perfectly fine and clear of roots; then sow the seed immediately, as follows: A common table spoon of seed will be sufficient to sow one hundred square yards; a bed 20 yards each way will take 4 spoons of seed. As soon as the number of square yards is ascertained, measure out the seed as directed, and thoroughly mix them with dry ashes, in the proportion of about a peck of ashes to the hundred square yards. Mark off the bed in lands 4 feet wide, with a stick or hoe helve; divide the seed in two equal parts; take one half and sow broadcast, from mark to mark, walking about equal distance from the marks. The judgment of the sower must be exercised as to the quantity of seed and ashes he will throw out at each step. It must be so done that the seed and ashes may be regularly sown over the entire bed. After the first half of the seed is sown in this way over the entire bed, take the other and sow as before, only walking in the marks instead of between them; then press the earth close to the seed, with the feet or roller; then cover the bed thick with straight brush, clear of leaves. If the spring should be cold and late, a few pine tops or bushes, thrown over the brush already on the bed, will protect the tender plants from the frost and chilling winds. As soon as the plants are as large as four-pences, or are even square, you may begin to sift over them, through a coarse hamper, fine stable manure. Trash tobacco, powdered up fine, and ashes, make a good manure for young plants. You need not be afraid of hurting the plants by putting on too liberally, provided you do not smother them. I have known them covered up in this way, *head* and *ears*, and, in

a few days, they were seen *peeping* out from under their covering, in all the freshness of *youth* and *vigor*. The stable manure should be fresh; the ashes either leached or unleached—if unleached, fewer, of course, will be used; and it is best to put them on when the plants are dry. Plant beds are some times covered over with dry wheat chaff, in the spring, to keep off the fly, and retain the moisture in the land. If this is done, care must be taken, so that the young plants are not smothered by too thick a coat; thickness of ½ inch for the chaff will be sufficient for all useful purposes. Hog hair is a good manure for plant beds, if put on and chopped into the land before sowing the seed. It acts admirably. As soon as the weather turns warm, and the frost disappears in the spring, plant beds may be uncovered, and manured, after or before every shower, or at least once a week, with any quick and strong manure. The best time to set out the plants into hills is from the 25th of May to the 10th of June. If the plants are large enough by the 20th of May to set out (and they are sometimes planted by the 10th of May), if there is sufficient moisture in the land to keep them from perishing in the hills, they should be set out. One hundred square yards of plant bed, prepared and treated as directed above, will, in ordinary seasons, plant ten thousand hills. If the land to be planted in tobacco is new ground, after clearing it of all brush and wood, haul off or burn the leaves, and coulter well, two ways; then harrow and coulter again, and harrow and burn off the roots. The land will then be ready to lay off into rows, which should be done, on new land, 3 feet 3 inches from row to row, and the hills made about 3 feet apart in the rows. In making the hills, care must be taken to chop well the foundation of the hills, and collect as much of the top of the soil into the bottom of the hill as possible, and keep out the roots and turf. The hills should be made about as large as a bushel of sand would be if poured from a bushel measure. The hills should be made as early in the spring as possible, so that, when the plants are large enough, and the proper season arrives to set them out, the hills may be ready to receive them. When the time arrives for setting out the plants, which is usually done after a rain, the tops of the hills are cut off and dressed with a hoe, to retain the moisture. The plants are then dropped upon the hills, and planted by hand, with sticks or pins about six inches in length, and one inch in diameter. With this stick or pin, a hole is made near the centre of the hill, sufficiently deep to receive the root of the plant, which should be straightened through the fingers of the left hand before being put into the holes; the dirt must then be firmly pressed to the root of the plant, with the stick and hand. If the land is new ground, it will rarely need to be replanted. If the land is second year's land or old lot land, you will generally find the cut worm more or less troublesome, and, some years, will have to plant such land over three or four times before you will get it to stand. If hogs could be put upon such lands assigned for tobacco, in the winter, they would destroy thousands of these troublesome customers. In replanting the tobacco, numbers may be caught with the hand, as they may be easily found near the plant they have destroyed. Tobacco should never be planted when the land is too wet, as that would injure the land, and very much retard the growth of the plants. New ground tobacco should be chopped over as soon as the tobacco takes a start to grow, that it may be kept clear of weeds and bushes. The land should be very slightly stirred at this time; in fact, I doubt whether new ground tobacco, when the land has been properly prepared, ought to have more than one working, and that a good hilling up about the time it comes in the top. All tobacco should be topped before it buttons or blooms. Prime off the bottom or plant leaves, so as to leave the bottom leaf of the plant about 3 or 4 inches from the ground or top of the hill. The number of leaves to be left on a plant will depend upon the growth of the plant, or strength of the land, and the time of topping. Every additional leaf left upon a stalk will generally keep the plant out or green so many weeks longer—that is, one week for every additional leaf. Tobacco, as a general rule, should be topped as soon as it can be primed sufficiently high, and the top or bud taken out, leaving the number of leaves desired to the stalk, without injury to the top or bud leaves of the plant, by the pressure of the hand. The number of leaves usually left on new ground tobacco is 8 or 10. In a week or ten days after the tobacco is topped, the suckers will begin to shoot out between the leaves and stalk. These should be carefully broken off with the hand, as soon as they get long enough to take hold of. The tobacco will then have to be gone over, every five or six days, for the purpose of pulling the suckers off, and catching the worms. The worms should be caught when they are small, because they are more easily found, and before they damage and disfigure the tobacco. As soon as they commence eating the leaf, they pierce a little hole in it, and may always be found near the hole, and may be readily found and killed. They are usually found on the under side of the leaf, and are hatched from eggs deposited on the leaf by a large fly called the tobacco fly. The fly deposits its eggs on the tobacco, usually, and generally in the morning and late in the evening. Moon-shine nights, in August and September, have been ascertained to be the most favorable time for the fly to deposite its eggs, which will hatch in twenty-four hours. In looking for the worms, by a little attention, numbers of the eggs may be found and destroyed. These flies are very fond of the bloom of the Jamestown weed, and, about sunset or a little after, may be seen flitting from flower to flower. At this hour, numbers of them might be killed, which would be much easier than destroying their progeny. As the tobacco is not all topped at once, because some plants will, from some cause, grow off quicker than others, it is necessary to top over at least once a week; and from this cause arises the necessity of suckering so often. All the tobacco does not have suckers at the same time. The tobacco must be suckered and wormed over at least once a week until it is out. Tobacco should never be cut until it is thoroughly ripe, which may be known better by the *appearance* of the plant than by its *age*. A ripe plant of tobacco of one variety and soil will differ in appearance from another ripe plant of a different variety and soil. As a general rule, tobacco will come in top in about six weeks after it is planted, and will be ripe in about two months after it is topped. This will, of course, depend a good deal on the season, culture and number of leaves left to a plant. New ground and fresh land tobacco, when it begins to ripen, will assume a spotted or piebald appearance. As the plant comes to perfection, these spots will appear *clear* and *oily*, and the points of the leaves will begin to

curl under, and, when it is shaken with the hand, will rattle somewhat like it was frozen. It is then ripe, and ought to be cut. Before tobacco is cut, split the stalk from the top down to next to the lowest leaf on the stalk, in order that it may hang more firmly on the sticks. I am well satisfied that very many planters cut their tobacco before it is thoroughly ripe. If tobacco is permitted to ripen properly before it is cut, it is not only of better quality, but the weight is greatly increased. One ripe plant is almost as heavy as two green ones, and will bring, in market, four times as much. When tobacco is ripe, it should be cut; and as soon as it is withered or limber enough to handle without breaking the leaves, it should be picked up and laid down, or rather shingled down, in convenient places, to yellow. Care must be taken not to lay it so thick as to cause it to heat or coddle. To guard against this, put it down one plant thick in the course, laying one course upon another, so that the stalks and stems only show on the top of the bed. If put down in this way, the bed will not be more than about six or eight inches thick. From fifty to a hundred sticks, or more, may be put in a place, according as it may be convenient. As soon as it yellows, which will be in three or four days, if the weather is warm, then hang it on sticks, 4½ feet in length by 1 inch in diameter, ten or twelve plants to the stick; put it on a scaffold, made of long poles and forks, high enough from the ground to permit the free passage of the air. Let it remain on the scaffold, if the weather is fair, three or four days; then lay it down in piles of about one hundred sticks, while the dew is on it, and let it remain until it gets warm, which will be some six or eight hours; then put it in the house, and place it away about 5 inches between the sticks. If the weather is dry and windy, it will soon cure up without fire. If, however, the weather should be damp, give it a light firing, with any kind of seasoned wood, say from six to eight hours. It will not be necessary to fire it again, unless there should be a long damp spell. Tobacco managed in this way will *smell sweet*, *taste sweet*, and command a *sweet price*, provided the ollowing things are attended to: After the tobacco is sufficiently cured to strip and tie into bundles, one or two days work may be taken down at a time and bulked. As soon as it is stripped, rehang it and hoist away in the tobacco barn, and press it close together. In stripping and assorting, care must be taken to class it according to quality. It is best to have at least three classes. In the 1st class, you will put all your finest leaves; with the 2d, the short and ragged leaf, or the next best leaves; the balance put to the lugs, after throwing away all trashy and worthless leaves. When the tobacco is stripped, it should be immediately rehung (unless it is designed to carry it to market in the winter), hoisted up in the house, and crowded close together. Let it remain in this way until spring, when it may be opened and taken down in good keeping order for prizing. This should always be done at the time of a warm season, when the wind blows from the South—never when the wind is from the North or East. The hogsheads should be made of seasoned pine or poplar boards, 4½ feet in length, and 42 inches at the top head, and 40 inches at the lower, in diameter. The boards should be ⅝ of an inch thick, and 4 or 5 inches wide, and dressed at least on the inside, and set up and hooped all off with eight strong hoops to the hogshead. The heading plank should be inch pine or poplar seasoned plank. In packing the tobacco into hogsheads, put four courses into a layer; change the direction of the bundles in each layer. Put in about 400 lbs. into the hogshead before putting the hogshead under prize; then press down moderately and fill up again, and so on until you put about 1,300 lbs. into a hogshead. This quantity is enough of fine tobacco to put into one hogshead. If more than this is put into a hogshead, it will be very apt to be injured by prizing it too hard. Inferior qualities may be prized harder.

I have managed my tobacco, for the last fifteen years, as stated above. It has sold, in the Richmond market (the best quality of my crops), for this period, from $8 to $20 per cwt., eight dollars being my lowest price, and twenty my highest—ranging, generally, from $10 to $15. Oronoko tobacco is the kind I cultivate. This kind makes, when planted on grey, sandy new or fresh land, and managed *right*, the best chewing tobacco. This kind of tobacco is not so good for shipping tobacco as some other varieties. When planted on very rich land, it will grow very large, and, being more brittle than other varieties, the leaves will break off from their own weight. The *Johnson* and white stem tobaccoes are, perhaps, as good varieties for shipping tobacco as any others.

The soil on which to grow shipping tobacco should be rich bottom land or highly manured lot land; the richer the land, the better. The land designed for tobacco of this character, if bottom land, should be bedded in fifteen feet beds, and well harrowed and rolled; then lay off four rows on a bed, which would give 4 feet 9 inches to the row; then lay off the rows across the bed 3½ feet apart. The best implements to cultivate tobacco on this kind of land is the cultivator and hoe, which should be used frequently. The best manure for tobacco of this kind is stable and farm pen manure, well plastered, and laid on *thick*. When it is *ripe*, and not till it is *ripe*, it should be cut and scaffolded a few days until it begins to yellow a little; then house it, and commence firing it with a slow fire, increasing the fire, from day to day, until it is cured, which will take 4 or 5 days. Fire with any kind of wood, seasoned or green, as smoke is not objectionable to shippers. After it is well cured, it may be struck and bulked, which ought not to be done earlier than 1st of December, and stripped in bad weather, and again rebulked, taking care to have each bundle well straightened before it is bulked down. 4 leaves to the bundle, if the tobacco is large, will be the right number. Let it remain in bulk till spring, when it must be rehung and weather-dried, and taken down in dry keeping order and packed in boxes, and well weighted. Prize into such hogsheads as I have recommended for manufacturing tobacco; put fifteen hundred pounds in a hogshead; and then sell for the *very highest* price you can get.

I have long been of opinion that it would be to the interest of planters not to make more than half as much tobacco as they do. I believe, if the quantity was lessened one-half, the demand would be proportionately increased. If we could get as much or nearly so for half a crop as we now realize for a full one, it certainly would be good policy to cultivate a small crop—say one acre to the hand, instead of two, as is now generally done. If such a state of things could be brought about by mutual consent among tobacco growers, as to the quantity they would cultivate to the hand, a vast deal of

labor and time would be saved, which I would recommend should be directed to the raising manure, draining our wet lands, clearing out noxious weeds and useless stones, and in this way increase the fertility and productiveness of our farms, and the comforts and pleasure of home.

September 20th, 1849.

Application of Guano to Crops, &c.

BY THE EDITOR OF THE AMERICAN FARMER.

At the request of *several new subscribers*, we again repeat our views of the proper mode of applying Guano to crops, and before we enter into the subject, it may be proper to premise, that we know of no crop to which it may not be advantageously applied, where the soil may require the specific manures comprised in the elements of this truly valuable fertilizer. It may here be proper to remark, that among the salutary properties of Guano, stands, in bold relief, the fact that the poorer the soil, the greater will its powers of production and improvement be made manifest. One of the advantages resulting from its application, over stable and barn-yard manure, and a most important one, by the bye, is, the great *saving* of hauling out and spreading, which is effected by its use; a saving which, in many instances, where fields may be distant, almost, if not entirely, equal to the price of the Guano. It is proper, however, to state, that Guano differs much in quality; that from Peru, is confessedly best of any which has yet been submitted to actual experiment by agriculturists, or tested by the analysis of chemists, being much richer in its nitrogenous elements, than either the Patagonian or African variety. From the volatile nature of the ammonia contained in it, even specimens from the same parcels may differ in the quantities of that particular element which they may contain, and hence, the propriety of the advice which we gave some years since, that all the importations of this fertilizing substance should be made in tight casks, to prevent loss by the escape of the already formed, and forming, carbonate of ammonia. But as it is not probable that the expense attendant upon tight casks will be incurred by the importers, it will be to the advantage of the agricultural consumers, to make their purchases as soon after the article may have been imported as possible, and as soon after getting it home as possible, to mix an equal quantity of *plaister*, in weight, with it, in order to fix the ammonia, and prevent its escape. It would be well too, for those who may have barrels, or hogsheads, at hand, after thoroughly mixing the Guano and plaister together, to pack the compound away in such vessels, and place them under cover until the time of application may arrive. This latter precaution we do not hold to be indispensably necessary, though it would be better if it were done.

We have stated that Guano varies in quality, to prove which we will give a few of the analyses, which have been made.

Analyses of Peruvian Guano, by

	Voelckel—parts.	Klaproth—parts.	J. F. W. Johnston—parts.	Gardner.
Urate of Ammonia,	9	16		
Oxalate of Ammonia,	10.6	0.0		
Oxalate of Lime,	7	12·75		
Phosphate of Ammonia,	6	0.0		
Phosphate of Ammonia and Magnesia,	2.6	0.0		
Sulphate of Potash,	5.5	0.0		
Sulphate of Soda,	3.3	0.0	1.8	
Muriate of Ammonia,	4.2	0.0		
Phosphate of Lime,	14.3	10		
Clay and Sand,	4.7	32		
Undetermined Organic Substances, of which 12 per cent. is soluble in water, a small quantity of soluble salt of iron water,	32.53	28.75		
Chloride of Sodium, Common Salt,	0.0	0.5		
" " Ammonia,	4.2	0.0		
Water, Salts of Ammonia, and Organic Matter expelled by a red heat.			23.5	
Common Salt with a little Phosphate of Soda,			30.3	
Phosphate of Lime with a little Phosphate of Magnesia and Carbonate of Lime,			44.4	
Uric Acid,				10.5
Ammonia [form not stated,]				19.0
Phosphoric Acid,				14.0
Lime and Magnesia,			2	16.0
Salts of Soda and Potash,				6.0
Oxalic Acid with Carbonic and Muriatic Acids,				13.0
Sand,				2.0
Volatile and Organic Matters,				6.5

In a second analysis, made by Professor Johnston, he found very different results; but enough is known, both by the tests of chemical analyses and the actual experience of agriculturists, in the growth of crops, to place it beyond all question and doubt, that Guano is a most efficient and powerful agent in the improvement of soils, and, as a consequence, in the increase of their productive capacities. Nor do we hesitate to express the opinion, that when properly used, as an adjunct to lime or marl, that it will bring up any sound worn out land, to at least its original degree, if not a greater degree, of fertility; provided its application be followed by clover. We believe that, when properly applied to land, either limed or marled the previous year, that it will add twenty-five, thirty, and, in some instances, forty per cent to the product of wheat, besides infusing into the soil, the capacity to grow luxuriant crops of clover, and thus fit it for profitable future culture. If it will do this, and we are certain it will, then it will achieve all that any agriculturist can reasonably expect of it, or of any other fertilizing agent; and we are very sure that there is no other manure equally efficacious, within the reach of farmers and planters. When we say this, we do not mean that it should be implied, that we mean that agriculturists, possessing the pecuniary means, and the locality of position, to avail themselves of its agency, *should relax one iota in their exertions, to accumulate the materials for forming compost heaps;* for, after all that may be said about bought or foreign manure, every land owner should feel it to be his duty, to economise, and put to the best advantage, every pound of substance on his estate, which may be susceptible of being converted into manure. In connection with this view of the subject, it will be proper to remark, that it has been computed, that one hundred pounds of cow

dung will yield five-eighths of a pound of ammonia, besides other notable portions of salts, as salts of potash, soda and lime, besides the phosphates and sulphates of lime, making in all, in that quantity of fresh cow dung, about two and a half pounds of most valuable manure. The farmer may estimate how much he loses by neglecting his manure pile, when he reflects, that the daily droppings of a single cow are sufficient to produce half a bushel of corn or wheat, and that if it be preserved, she will make enough manure in a year, to effectually manure an acre of land. The same quantity of horse dung, will yield nearly three pounds and a quarter of ammonia, and nearly a pound of phosphates, and, consequently, is relatively more valuable than cow dung. Again, *sheep dung*, a substance which is disesteemed by many farmers of experience, and yet it is richer in fertilizing salts than either that of the cow or the horse; but as it speedily decomposes, means should be taken to fix and preserve its more volatile constituents. *Hog manure*, which is very little regarded by many, in point of fertilizing properties, when made by grain fed hogs, ranks next to *human ordure* or *night soil*, which, any day, is as good as the best Guano; for, besides the other salts, of intrinsic value in the elaboration of vegetables, at least fifteen pounds of ammonia will be found in every hundred pounds of that neglected substance. We have been speaking thus far of the solid evacuations of the animals enumerated, and of their values, relatively, to agriculture; and we will now say something of the liquid voidings of some of them, in order that farmers and planters may be induced to reflect how much they lose by permitting the urine of their horses and cattle to go to waste, instead of having conduits provided in their stables and cow-sheds, as they should, to convey it into a tight sink or vault, to be worked into manure. According to Professor Gray, as well as other eminent agricultural chemists, the quantity of ammonia in the *urine* of the cow, as compared with that in the dung, is as five to two, while it stands, in the other ammoniacal salts, as fifteen to two; that is, there are about four times the quantity of the salts of ammonia in the urine, that there is in the solid evacuations. One *hundred pounds* of the urine of the cow, will yield about thirty-five pounds of the most powerful salts ever used to improve the soil, or increase its products. The inference then, is, that the *urine* voided by a cow, in a year, if saved, mixed with loam, peat, marsh-mud, or other earthy substances, would manure two acres of land, just as effectually as would forty double horse cart loads of the very best stable or barn-yard manure. And yet, how few farmers have manure for their corn crops! And why not? Because they suffer that to go to waste, which was intended by Providence to fatten the earth. The *urine* of the *horse*, though not so rich as is that of the cow, is highly valuable,—fully equal to cow dung in value. The *urine* of a *man*, is still more valuable than that of either the cow or the horse; every pound of it is worth two pounds of the best cow dung. We have referred to these substances from the high sense we entertain of their value,—because, we desire to inspire the agricultural mind with a proper idea of true economy,—because we should be gratified in beholding agriculturists husbanding every thing calculated to preserve the earth which has been allotted them, in a condition to bring forth in a measure of fruitfulness and profit. If the urine voided in a farmer's stable and cattle yard, in a year, could be saved in a tight vault, and periodically mixed with, say, to every hundred gallons of the urine, twenty loads of wood-loam, marsh-mud, peat, or any other earthy substance, other than sand, and if there were incorporated with that quantity, one bushel of plaster, or ten bushels of pulverised charcoal, or twenty-six bushels of charred peat, there would be very little occasion to buy any other manure than *lime*, *marl* or *ashes*, which three substances cannot be dispensed with, where permanent improvement is looked to, as it ought to be by every farmer, as a primary object. And we will here repeat what we have often before advanced—that every system of culture, that does not include clover and the grasses, as an important part of its integral whole, is radically defective, as no land can be kept in a state of progressive improvement, where *lime*, *marl*, and *ashes*, *clover* and the *grasses*, are not among the cherished elements which comprise the system by which that end may be attempted to be attained.

With these digressions, we will return to the subject of the proper application of Guano to the land, and to crops.

We hold these to be agricultural truths—that Guano is most beneficially applied, when ploughed in as spread on the earth,—that it should be ploughed in never less than four inches deep,—that it is better, for permanent effect, to be ploughed in deeper, say from six to eight inches in depth,—that where, from circumstances, it may be desirable only to bury it four inches deep, the land should be previously ploughed as deep as the furrow can be turned up, and the Guano be applied at a second ploughing—that all *top-dressings* with Guano are wasteful, inasmuch, as from the volatile nature of the more active parts of the manure, great loss must inevitably result from all such applications, and, because, more moisture than is to be found on the surface, is necessary to excite, and carry on, that healthful progressive state of decomposition, which is required to render Guano most available for present production, and future improvement.

Preparation of Guano.—If on taking the Guano from the packages, it should be found to be lumpy, the lumps should be pulverized by the back of the spade, or shovel, whichever may be the implement used for the purpose; and, as this process may be going on, an equal quantity, in weight, of plaister should be mixed with the Guano, to give fixidity to the already formed carbonate of ammonia, and moderate the formation of more from those other elements possessing ammonia, in, as it were, a transition state, only requiring the influence of heat, moisture, and air, to separate it from its compound, and convert it into a carbonate. If plaister should not be at hand, ten bushels of pulverized charcoal will answer, instead of a bushel of plaister, to every hundred weight of the Guano; twenty bushels of peat *charred*, under a smothered fire, in the same way that charcoal is made, will also answer, instead of ten bushels of charcoal; or ten pounds of copperas, made into solution, will be sufficient, if sprinkled on the mass, as it is being formed, for every hundred pounds of Guano; so also will woods-mould answer, where neither of these substances are available, but where it may be used, a much greater quantity is necessary, say, two cart loads for every hundred pounds of Guano; and as this would increase the labor, a thing of cost, and as we believe the plaister to be the most effective and cleanly *fixer*, all things considered, we prefer it to either of the substances named. A very good fixing agent

may also be found in *sulphuric acid;* if, with *every* pound of that oil, *ten* pounds of water be mixed, and the mass, as formed, be sprinkled with it, and afterwards turned over.

Quantity to be Applied.—If the soil be *poor*, and it be desired to permanently improve it, at least four hundred pounds of Guano, without respect to the fixer used, should be spread, *broadcast*, on every acre of it, and ploughed in to the full depth of the furrow, unless, as in the case to which we have before alluded in a previous part of this article. If the land be in *moderate heart*, three hundred pounds of *Guano* will be enough, per acre. Where the soil may be *good*, two hundred will be sufficient. These quantities, as the reader will observe, have relation to *broadcast applications*, as all applications should be where general improvement of the soil is contemplated. But if there be any, who from circumstances, should be compelled to confine his experiment on his *corn*, to applications in the hill, a form of manuring, when resorted to solely, which we have ever disapproved of, two hundred pounds or even one hundred of Guano, will be sufficient to manure an acre of ground. Either of these quantities should be mixed with a bushel of plaister, five bushels of slaked ashes, and a double horse cart load of wood or other mould, and apportioned out equally to the corn hills contained in the acre. These quantities of Guano, ashes, and mould, will be found equally, if not more effective, than ten loads of the ordinary kind of manure applied in the hill. It should be put in the hill before the corn is dropped; so soon as the corn is dropped, it, and the mixture, should be covered over with the surrounding mould, to the depth of two or three inches.

If it be desirable to manure *corn land*, *broadcast*, and it certainly ought to be, for the benefit of the succeeding crops of a rotation, then, in that case, it will require four hundred pounds of Guano, and the same quantity of plaister, the which should be thoroughly mixed together, by being repeatedly shoveled over before being sown on the land, which should be done as evenly as possible, so as to produce as near an approximation to equality as possible, in the product, and in the after fertility of the soil. And, as we have before recommended, the ploughing in, should, as rapidly as possible, follow the sowing of the mixture.

For Oats we would use a mixture thus comprised, *per acre*, two hundred pounds of Guano, a like quantity of plaister, one bushel of salt, and five bushels of ashes, to be treated as before prescribed.

For Wheat, where the soil was what may be termed fair, but not fertile land, we would apply, broadcast, per acre, three hundred pounds of Guano and one bushel of plaister, to be managed and treated as we have stated above; if the soil was moderately fertile, we would treat it to two hundred pounds of Guano and one bushel of plaister; but if exhausted land, we would give it four hundred pounds of Guano and one bushel of plaister. In either case, the lumps in the Guano to be thoroughly pulverized and mixed with the plaister; when mixed, to be ploughed in as speedily thereafter as possible.

It is but proper here to observe, that in England forty-eight bushels of wheat have been grown on an acre of land, after an application of one hundred pounds of Guano, but the same quantity would not avail here, for the reason that the land in that country is generally in better heart than in ours, and from the humidity of the climate, the soluble salts contained in Guano, as well as those subject to be rendered soluble under the influence of moisture, it would be likely to be more efficient in a single crop there than here, though we doubt, whether its permanent effect would be so long and advantageous.

Barley we would have treated as we have advised for oats.

In setting down a *Timothy meadow*, with Guano, as the crop has to remain some six or seven years, we would treat the soil to a full dose. We would give to each acre, four hundred pounds of Guano and two hundred pounds of plaister, which should be well mixed as before mentioned, and ploughed in to the full depth of a good furrow. If the land had not been previously limed or marled, we would, during the winter after the timothy was set, when the ground was frozen, apply, per acre, about one hundred bushels of *lime*, or two hundred bushels of *marl*, taking care to spread it evenly.

For Potatoes we would *mix* three hundred pounds of Guano, one bushel of plaister, and *three* loads of good mould, or marsh-mud, together, and sow on each acre in the drills, then plant the sets and cover. On the first coming up of the potato plants, we would sow one bushel of lime, one bushel of ashes, and one bushel of salt, mixed together, for each acre, and sow it on the drills and in the furrows.

For Turnips, three hundred pounds of Guano and one bushel of *plaister, per acre*, should be mixed together, spread broadcast, and ploughed in. So soon as the turnips came up, we would sow thereon a mixture comprised of five bushels of ashes, and two of salt.

Beets, Carrots, and *Parsnips*, two hundred pounds of Guano, and one bushel of plaister, will, we think, prove sufficient to produce a good crop of either of these kinds of roots, and leave the land in good condition for almost any succeeding crop.

For Cabbages. as this vegetable is a rapid grower and gross feeder, less than four hundred pounds of *Guano*, and one bushel of *plaister*, to be well mixed together, will not grow an acre of cabbages luxuriantly. These quantities, we believe, will be found ample.

As to Lime, Marl and Ashes.—Now, as the question may be asked us, whether either or all of these substances may be applied to land, where *Guano* may have just been ploughed in? We will, in order to render this article the more complete, anticipate the question, and furnish the answer. We reply then, that where a mixture of *Guano* and *plaister* has been ploughed in the soil, that *slaked lime, marl*, and *slaked ashes*, or either of them, may be applied as a top-dressing, and that we do not apprehend that any evil effect would be produced by such application. Without the admixture of plaister, as a fixer, with the Guano, *recent burnt lime, might* drive off the already formed ammonia too rapidly, and, perhaps, prematurely convert the other forms of ammonia into carbonate, and thus operate injuriously; but that it would do so we are not certain, as the intervening mould between the lime and the Guano would, to a very considerable extent, serve as a barrier against such effect. Marl might, under any circumstances, be freely applied as a top dressing, without the slightest fears being entertained of any deleterious consequence resulting therefrom. So, also, might *slaked ashes.*

We have endeavored to cover the inquiries of those of our new subscribers, at whose instance

this article has been written, and while we trust it may prove satisfactory to them, we shall indulge the pleasing hope, that it may be acceptable to the rest of our numerous and esteemed readers.

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Harrowing in Guano—covering it with the Cultivator.—Each of these modes of applying Guano to the soil, have been practised both in this country and in England, by intelligent farmers; and in various instances have been spoken approvingly of, success having attended such applications in single crops; but we doubt whether much, if any *permanent* benefit were done to the soil, in qualifying it for the production of the subsequent crops of a course of rotation. In *Peru* it is used topically, but such applications are always followed by *immediate irrigations* of the soils to which it is applied, the Peruvian *acting* upon the philosophical principle, whether they comprehend its theory or not, that to secure the nutrient properties of this active fertilizer to their growing crops, it is essential that they provide an absorbent, and that they find in the *water* furnished by their processes of irrigation. Experience, practice, and observation, have taught them, that unless they cause the carbonate of *ammonia*, and the varied compound substances with which it exists in the Guano, to descend speedily to the roots of their plants, that from the volatility of its more active and efficient elements, they will be expelled by the heat of the sun, escape into the air, and be lost for all the purposes of vegetable growth.

We admit that under a favorable concurrence of circumstances, where *rains* in quick succession occur soon after Guano may have been either harrowed or cultivated in, that more than the first crop may be benefitted by its application, and that the power of the soil for after production, may be increased, because *water* is competent to absorb many hundred times its own bulk of ammoniacal and other gases, and convey them into the earth as it descends, and thus to place them beyond the wasteful influence, for a considerable time, of the eliminating effects produced upon such substances, when acted upon by heat and moisture. But in view of the whole ground, taking into consideration the evanescent nature of any ammonia in Guano in the carbonate form, and the susceptibility of all the compounds in which it exists, to be converted into that form, we honestly believe, that, so far as lasting benefit to the land may be concerned, Guano should be ploughed in. As all volatile gases naturally tend upwards, those which may escape will necessarily, in their ascent, yield to the voltaic influence of the roots of the growing plants, and contribute to their support, though buried six or more inches beneath the soil. So also will similar supplies be derived from the urate of ammonia, the oxalate of ammonia, the phosphate of ammonia and the muriate of ammonia, as these several substances may, by the chemical manipulations of the earth, be converted into carbonates. These processes may be slow, and if so, so much the better for permanent utility. In all tolerably good Guano, there is a sufficiency of the carbonate already formed to carry on healthful vegetation, and therefore, it is best to place it sufficiently deep to prevent the waste of an element so essential to the growth of plants, and so liable to loss.

It is possible where the soil had been, by repeated harrowings, reduced to a state of very fine tilth, that Guano may be covered sufficiently deep with the *Cultivator* to become mixed with, and consequently be absorbed by the vegetable remains of the earth, and thus be prevented from loss by escape of its volatile gases; especially would this be the case, if the process of cultivating it in, were soon after followed by penetrating rains. In admitting this, we still adhere to the opinion, that, so far as *permanent* benefits are concerned, the most economical mode of applying Guano to the earth, is by the *plough*.

INTERESTING EXPERIMENTS.

FARMING IN DORCHESTER — ANALYSIS OF SOIL BY THE STATE CHEMIST.

Baltimore, December 17, 1849.

To the Editor of the American Farmer.

Dear Sir :—I send you for publication, the following series of experiments, made by J. Wallace, Esq., near Cambridge, Dorchester Co., Md., with the Analysis of one of his varieties of soil.

Analysis of specimen No. 1, *field No.* 1, *for J. Wallace.*

Heavy compost, white soil, "white oak land,"—specimen taken to the depth of six inches. This soil had never been improved—it was composed as follows—of

Organic i. e. vegetable matter,	7.20 per ct.
Silica, i. e. Sand,	90.50 "
Alumina and Iron as per Oxide,	1.70 "
Alumina and Iron as Phosphate,,	.09 "
Lime as Carbonate, i. e. Slaked lime,	.10 "
Magnesia,	.21 "
Potash and Soda,	.111 "
Sulphuric Acid,	.008 "
Chlorine,	.006 "

N. B.—The .1 or .10 is the one-tenth of one per cent. and is equal to about 30 bushels of the substance which it represents, calculated to the depth of 12 inches of the soil. Six inches of soil will, of course, only give half that quantity. The above soil therefore contained but fifteen bushels of slaked lime to the depth at which the specimen was taken. The experiments then of Mr. Wallace, which are perfectly reliable (when taken in connection with the above analysis), furnishes the most valuable facts yet given to the agricultural community. They show what has been done, and moreover show to others *how* it has been done. They show that upon similar soils, that the application of a few dollars worth of oyster shell or its equivalent of stone lime, will pay for itself in the first crop, more than three times Chemical analysis will show what soils belong to the same class.

The results of Mr. Wallace's experiments particularly prove—

1st—That it is possible for an intelligent practical farmer to improve his lands, and find out the *best* means of improvement *without* the aid of Chemical Analysis.

2d—That it is impossible for any one to select the *best* means of improvement by any one set of experiments.

3d—That a series of experiments carefully made and tested by four or five years of experience may show the decided superiority of some *particular* manures over all others in reference to some *particular* soil.

4th—That the experiments of Mr. Wallace cost him a large sum, both in the purchase of manures and in the loss of crop, on the rest of his land which

was not manured until he could be satisfied what was best for them. To prove this let the three acres be taken upon which he made the experiment to test the relative value of Lime and Ashes.

One acre in 1847 manured with ashes, cost	$12 50
The cost of Lime, which proved to be equally good,	3 00
	$9 50

Showing a difference of nine dollars and fifty cents on this acre, in favor of the Lime. But there is the interest on the difference between three and twelve dollars, to be added to the account—and the loss of the increased crop with interest, on the acre on which no manure was placed, which was nine and one-half bushels of wheat, worth say, $9.50.

The loss on the two acres then being,	$19 00
Interest on same,	1 25
Whole loss,	$20 25
Loss of clover seed on the unmanured acre,	50
Loss of clover crop on same,	5 00
Loss on three Acres,	$25 75

Showing clearly a loss of $25.75 on the three acres only; equal to $8.58⅓ per acre.

This loss was from inability to determine before hand the particular manure best suited to this variety of soil. Now take the amount lost on the acres of Mr. W., which were suffered to lie unimproved, because he did not know the best means of improvement, and it will be more than one thousand dollars, all of which would have been saved him, as he says, and is proven by the facts, by the aid of chemical analysis. See the above table to which the strictest scrutiny is invited, and the paragraph in his letter to me marked A.

5th—That this experiment *does* not prove that Oyster Shell Lime is the best manure for all soils.

6th—That the experiments of Mr. W. are worthless to others without analysis of their soil—and I may here also remark, that all of the experiments made in Europe, as well as those made in this country, have only led farmers, in very many instances, astray, have only "dazzled to blind," this being the very first published experiment where the Analysis of the soil has accompanied the publication of the results of the successful application of manure—the very first instance where the particular causes of barrenness and fertility, have been shown by a knowledge of the composition of the soil and the manure. It is the first onward certain step to determine the best application of a manure to the soil, and to show by practical demonstration, by facts and figures, the economy, the certainty, and the necessity of the application of chemical analysis to agriculture.

The experiments of Mr. Wallace, on his other varieties of soil, teach lessons of equal practical value, which I will give to the readers of the Farmer in some future number.

Very truly, yours, &c.

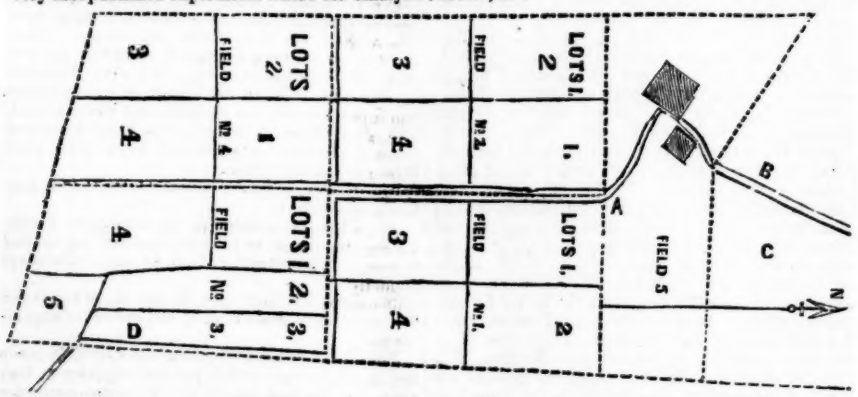
JAMES HIGGINS, Agricultural Chemist.

CAMBRIDGE, Nov. 7th, 1849.

DR. JAMES HIGGINS.

Dear Sir—As you will perceive by the above date, I have taken an early opportunity, since the adjournment of our county court, to comply with your requests, and my oft repeated promises, to furnish you with an account of a series of experiments made by me with different fertilizers, and the general results of my farming operations.

My farm as you know is small, containing only one hundred and fifty acres, and is situated about two miles from the town of Cambridge, and one mile from Choptank river. The soil is composed of four varieties, to wit: a small portion of sandy loam, about one third of black vegetable mould, and the balance equally divided between white and yellow clay, or as you more properly term the latter, "white oak lands." When I purchased in the summer of 1844, the whole tract was covered with bushes, branches, and forest trees. In the winter and spring months previous to the said purchase, one half of the tract had usually been covered with water about 12 to 24 inches in depth. My first operation was to lay out the farm, and project the water drains. The following plat will give you an exact idea of the location of fields, buildings, fences, drains, &c.

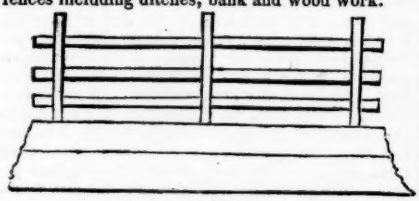


A. Road from farm house through the fields. B. Main entrance from County road. C. Woodland. D. Leading Drains.

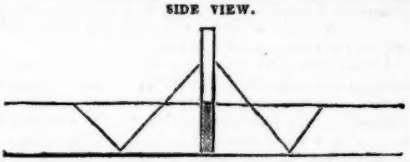
The dotted lines mark the fences, made by two parallel ditches, (the earth from which being thrown together makes a bank three feet high) and three strips of plank six inches wide, nailed to posts eight feet apart.

The double lines running longitudinally and transversely through the farm indicate the main drains, being deeper and broader than the others. The single lines cutting each other at right angles, and the fields into divisions mark the collateral drains. The fields are numbered one, two, three, four and five; and each field is again subdivided into lots, mostly containing five acres. The two small squares at the termination of the main entrance, mark the location of the dwelling and farm houses.

As soon as the plan was determined upon, I employed a number of laborers, and ditched and banked the farm in a short time; paying twenty-five cents per perch for the double ditches and bank, and twelve and a half cents for the single ditches. The plank cost me ten dollars per thousand or twenty-five cents per perch, making the cost of the fence exclusive of posts and nails, and putting up, fifty cents per perch. The work is firm and durable, the banks are generally taken in grass and bushes, and the fence proof against the depredations of stock. Moreover the ditches effectually drain the farm. The following is a sketch of the fences including ditches, bank and wood work.



SIDE VIEW.



END VIEW.

As soon as the land was drained, and enclosed, I commenced with four men January 1st, 1845, to cut down and clear off the bushes, trees &c., which covered the ground in many places like growing wheat. In the spring when the brush had dried a little, fire was applied, and every thing burned clean from the land. Then I put into the space thus cleared a large plough, made for the purpose, drawn by two and sometimes three yoke of oxen, and broke up about twenty acres. This was subsequently cross ploughed, and well dragged, the roots raked into piles and burned, then planted in corn. Upon this twenty acres I made sixty-five barrels of corn. In this manner I have proceeded year after year, clearing and cultivating about twenty and thirty acres, in the order in which the fields are numbered on the plat, one, two, three, four and five. Upon the unsubdued portion of field No. 5, I am about to commence operations. Besides clearing and cultivating the fields above mentioned, I have covered with lime, ashes, and compost manure, three fields out of the five. This winter, and the coming spring I expect to clear the balance of field No. 5, and cover it and field No. 4 with lime, ashes and compost. The ashes which I have used in fertilizing my lands, I obtained mostly from Baltimore, at a cost, landed in Cambridge, of twelve and one-half cents per bushel. I have used also four thousand bushels of lime, at a cost landed on my wharf on the river, one mile distant, of three cents per bushel for shells, and eight cents for stone lime. The cost and quantity of the above, as well as other fertilizers which I have used, will appear in the account which I shall presently give you.

Having had no experence in farming previous to my purchase of this tract of swamp land, and my scheme of reclaiming this natural meadow, being considered by many of my best friends, wild and impracticable, I proceeded cautiously with my experiments, and kept a rigid account of the expenditure, as well as the results. I had read many contradictory theories upon the action of lime. I had heard of many statements of results, some sustaining and others condemning the utility of its application. So in the midst of this doubt and uncertainty I determined to *feel* my way. Accordingly in the second year of my operations, I laid off four acres in lot No. 1 of field No. 2, to experiment upon, and test the relative value of lime and ashes. I will designate them, acre A, B, C, and D. Acres A and B were composed of a black vegetable mould upon a clay subsoil. Acres C and D. were rather inferior, being stiffer in texture, and had not so much vegetable matter in their composition. The whole lot was flushed up in the spring of 1846, preparatory to being planted in corn. After the corn was planted, upon acre A, I spread broadcast one hundred bushels of lime, (cost $3) and fifty bushels of ashes, (cost $6.) Upon acre B, I spread one hundred bushels of ashes, (cost $12.) Upon acre C, I spread in the same manner, one hundred bushels of lime, (cost $3.) Upon acre D, I put nothing. The corn was drilled in lines six feet one way, and eighteen inches the other. The corn came up and flourished until the 4th day of July; the season and cultivation both being favorable. But on that day the crop was injured by a heavy rain, and immediately afterwards further injured by injudicious cultivation. Through the entire season, the appearance was decidedly in favor of acre A. Acre B was next; but between acre C and acre D there was no perceptible difference. I gathered from acre A, dressed with lime and ashes, fifty bushels of shelled corn, where had grown the year previous only thirty bushels. From acre B, I obtained about forty bushels. In the other two acres I could see no improvement upon the crop of last year. In the fall after the corn was removed, the *whole* lot was sown in Timothy—only one half bushel of the seed sown was good and came up, and that was sown across the heads of all the selected acres. The strip that was taken in grass, I suffered to remain, and put the balance in corn the following spring (1847.) From that time to this the crop of every kind, grass, corn, buckwheat, and oats, have been decidedly heavier and finer upon acre A dressed with lime and ashes, than upon any of the others. Acre C, upon which lime alone was put, has been gradually outstriping acre D, upon which nothing was put, and has now I think come up to the same standard of fertility with acre C, dressed with one hundred bushels of ashes.

The conclusions which I drew from the above experiments, were that lime and ashes combined was the best application of those substances to my soil.

The effect was more immediate by combination, very powerful, and equally as durable as where they were applied singly. The extra cost of the combination over the limed acre or ashed, was paid by the increased crop, over either of those acres, the first year.

Not willing to rely too strongly upon these conclusions, I determined to try other experiments upon field No. 1. I accordingly purchased five hundred bushels of ashes in Baltimore, and had them landed at a cost of 12½ cents per bushel, and applied them upon lot No. 1. of field No. 1. at the rate of one hundred bushels per acre; immediately alongside I applied one hundred bushels of shell lime, at a cost of 3 cents per bushel. The whole was sown in wheat in the fall of 1847, upon an oat stubble. At harvest I measured off and reaped separately, one acre of the *ashed* land, and one acre of the *unimproved* land. Upon the ashed land, I had raised seventeen bushels of grain, upon the unimproved only *seven* and one half, an increase of nine and one half bushels. The product of the limed acre was not measured, but as far as the eye could observe, there was a slight difference in favor of the ashes, but very little. The difference in the cost of improvement however was material; the ashed land cost $12 50 per acre, and the limed only $3 00. On the young wheat in the spring, clover seed was sown upon the whole field, but the plants all died in the summer, except where the lime and ashes had been applied. And I may here add, that in every instance I had failed to raise clover where either lime or ashes had not been applied. You analyzed a portion of this field, alongside of my experimental lots, and noted the results drawn under the caption of "specimen No. 1." "of field No. 1," by which it appears that this land is sadly deficient in lime, and the elements of ashes, but particularly in lime. With lime alone it can be made rich, producing about twenty bushels of wheat per acre, but by a combination of lime and ashes, or lime and bonedust, or lime and poudrette, it can be made *exceedingly* fertile.

(A.) I may here add, that your analysis in this instance, fully sustained the conclusions which I had drawn from my experiments—to wit: that my soil needs lime more than any other single element; that by supplying it alone, at a trifling cost, I might reap rich harvests, but by adding the elements of ashes with the lime, I might expect a much greater abundance. Not only does a coincidence exist in this instance, but in every case, where you had analysed soils upon which I had been experimenting.

I will state another experiment with lime and ashes. I selected two lots of about five acres each, lying contiguous to each other, in field No. 2, and designated on the plot as lots No. 2 and 3, with soils as nearly identical as possible, and of about equal fertility. Upon lot No. 3, I spread in the spring of 1846, five hundred bushels of stone lime. The effect upon the corn crop was immediate. The product was nearly doubled. The year previous the same lot produced only 25 barrels of corn; after the application of the lime it produced 42 barrels. The year following, that is to say 1847, the same lot was cultivated in corn again, but the crop was not so good, and not measured, having received serious injury from the excessive rains of the season.

In the year 1847 I spread upon lot No. 2, referred to above, five hundred bushels of ashes, purchased in Baltimore, and put it in corn—I planted and cultivated it in corn in the same manner as lot No. 3, and at gathering time I could see no difference in the appearance of the crop on the two lots. They were about equal. But both were injured by the excessive rains of the season, and for that reason not measured. In the fall both lots were sown with the same kind of wheat, after having been in cultivation in corn for four years. At harvest there was a manifest difference in the appearance of the two lots. Both had prime wheat upon them, but the wheat upon the limed lot was much superior to that upon the ashed one. The growth was taller, the straw larger, and the heads longer and fuller. The limed lot averaged 20 bushels, but the ashed one only 15 bushels. Mark now the difference in the cost of the improvement. The five hundred bushels of Baltimore County lime cost $40—the Baltimore ashes $62.50.

I have experimented also with Guano and Poudrette, but I have not time now to give you a full account of the operations. I am apprehensive also that I am drawing out this letter to too great a length—suffice it to say, that I prefer lime to any of the agents I have used, at the prices which they are now respectively bringing. Lime yields a larger interest upon the money invested in it, than any substance I have used. At first it is not equal to Ashes, Guano or Poudrette, but upon the aggregate of four years, the yield is decidedly in favor of lime. Shell lime can be obtained at a cost of three, four and five cents, exclusive of the cost of burning, which is trifling, and stone lime at eight cents per bushel; but I prefer shell lime. From the observations I have made, and the accounts which I have kept, I find that the lime which I have applied, in the four years past, has yielded me an annual interest, upon the average of the four years, in no case less than twenty-five per cent., and in some cases fifty, and in one instance nearly one hundred per cent. With such results before me, my doubts and hesitation have fled; and I am now straining every nerve and sinew to dress, *copiously*, the whole extent of my farm by the ensuing spring.

I will now give you an account of the cost of *making* and *improving* this farm. I have charged it with the purchase money, and every dollar expended in its improvement. I have also credited it with what I have taken from it, either for sale or consumption at my home in town. What it is worth now, you can form an opinion from your own inspection. I have been importuned by several responsible men to rent it to them, for one-half of its products. It yielded, last year, 185 barrels of corn; and this year, 370 bushels of wheat, on twenty acres. Henceforth, I may reasonably calculate upon 200 barrels of corn, and 400 bushels of wheat, without further expenditure of money for manures. In stating the account, I will not give you the items as they appear in my books; too much space would thereby be taken up, without any advantage. I will classify the items, add them together, and carry out the results. I have been in the habit of adding up the columns and balancing the account on the 25th day of December, in each and every year, and it will thus appear in the statement submitted:

Woodland Farm in account with J. Wallace.

1844	Dr.			Cr.		
Aug.	To cost of purchase of 150 acres	450	00	By wood and lumber sold from farm	156	39
Nov. 30	To cash paid laborers for draining and banking	172	01	By 55 barrels corn sold from farm	192	50
1845				" rent of tenements	47	00
Feb. 13 and	To plank and material for fencing,			" 20 bus. potatoes taken home	10	00
Mar. 31	including gates, hinges, posts, &c.	177	94	" 34 bus. buckwheat sold, 90 c.	30	60
April 29	To cash paid for lime and ashes	9	50	" lot fodder and hay taken home	20	00
Dec. 25	To cash paid for regular and extra labor in clearing, &c.	359	75		456	49
		1169	20	Balance first year vs. farm	712	71
					1169	20

	Dr.			Cr.		
1846	To balance from 1845 account	712	71	By wood and lumber sold from land	23	00
Oct. 30	To cash paid for buildings	365	28	" 86 bus. buckwheat sold,	50	00
Feb. 22	To loss of horse, valued at	40	00	" 40 bus. sweet potatoes	10	00
"	To labor of cultivating and clearing land, ditching, &c.	415	41	" 100 bus. Irish do	25	00
"	To cash paid for ashes	3	87½	" lot blade and top fodder taken home	30	00
Dec. 25	Interest on balance of 1846 account	42	70	" 3 cords hickory wood	9	00
				" 10 do oak do	20	00
		1579	97½	" 400 lbs. pork	12	00
				" increase of poultry	10	00
				" 1000 bus. corn sold and taken to town	300	00
					489	00
				Balance vs. farm, Dec. 25, 1846	1090	97½
					1579	97½

	Dr.			Cr.		
1847	To balance from 1846 account	1090	97½	By wood and lumber consumed in town	44	00
	To cash paid for lime and ashes	134	76	" sundry articles sold in market	10	00
	To do for building and improving	52	00	" 1200 lbs. pork taken home, in town	75	00
	To cash paid for ditching	5	53	" hay, fodder, oats, potatoes, pumpkins, &c., consumed by extra cattle and stock in town	112	00
	To laborers' hire and cost of cultivation, clearing, &c.	325	00	" 764½ bus. corn sold from land	308	11
	Interest on balance of 1846 account	65	40	" profits on beef sold	15	00
		1673	66½	" grain and meal consumed in town	20	00
					584	11
				Balance vs. farm, Dec. 25, 1847	1089	55½
					1673	66½

	Dr.			Cr.		
1848	To balance of 1847 account	1089	55½	By sundry articles sold in market	15	55
Feb.—July	To cash for ashes, lime, guano, &c.	167	10	" 132 bus. wheat sold	137	00
Mar. 10	To do for fruit trees, seed, &c.	37	00	" 20 do reserved and consumed in town	20	00
Dec.—	To do for labor and expenses in cultivating farm, including repairs and mechanics' bills	372	02	" 70 bus. sweet and Irish potatoes	17	00
Dec. 25	Interest on balance of 1847 account	65	34	" 650 bus. corn sold	300	00
		1731	01½	" 65 do consumed by domestics, horse and cattle in town	38	00
				" 2000 lbs. pork, 6c.	120	00
				" 30 c'ds wood consumed in town	60	00
				" profits and increase of beef and poultry	15	00
					722	55
				Balance vs. farm, Dec. 25, 1848	1008	46½
					1731	01½

Thus, my dear sir, you will perceive that the farm, on the 25th day of last December, was indebted to me in the sum of $1,008 46½, with all the necessary buildings, fences, drains, &c. in complete order—one hundred acres cleared and in cultivation, and sixty highly improved with lime, ashes, guano, poudrette, &c. (the lime and ashes at the rate of one hundred to one hundred and fifty bushels per acre). Were I to sell off the grain and other crops of the present year, and retire from the business, I would realize money enough to pay the debt the farm owes me, within two or three hundred dollars, if not entirely; if entirely, then, estimating the farm at $3,500 (which I consider a very moderate estimate, for I can, in the shortest notice, obtain a rent for it of $400 per annum, which is six per cent on nearly $7,000), in five years, I have made, by the operation, $3,500, with an actual investment, in no one moment of time, of over $1,000 of capital.

If then these calculations and estimates be true, (and I am sure they are, for I have kept my accounts for my own instruction, and not for the public eye, and I have no interest or motive in deceiving myself,) where is the necessity of our young men leaving Maryland, and especially the Eastern Shore and seeking a home in the Western wilderness? Why abandon the old hearthstones, the scenes of boyhood, friends, society and all, and plant themselves in a strange country? I aver that if our active and enterprising young men will stay at home and display some energy and enterprise, they can do better in the pursuit of agriculture *here*, than they can do in the south or west. There is an immense field open, and rich harvests awaiting the enterprising in "old Dorset." At least one half of our land is yet not under cultivation, and all can be bought low. The soil is exceedingly easily improved, and can be readily drained, and there is scarcely a tract that is ten miles from a good navigable stream of water. All that is wanting here, is capital, energy and enterprise; with a liberal share of them our county and the whole Eastern Shore can be made the garden of the state, if not of the Union. With apprehension that I have spun out this communication to too great and tedious a length, and said too much about a small matter, permit me to subscribe myself your friend, &c.

J. WALLACE.

INFORMATION WANTED.—As the price of the products of the soil, like those of all other articles, are regulated by the relation which the supply may bear to demand, it is a matter of deep concern to agriculturists that it should, at all times, be known whether crops have proved abundant or otherwise; and in order that speculative misrepresentations may not operate to the prejudice of the agricultural interests, we should be pleased, if our subscribers, in various parts of the several States in which our journal circulates, would send us reliable statements as to how the crops grown in their respective States turned out during the past season. It frequently occurs that exaggerated statements of abundant crops having been grown, are published by interested parties, to enable them to *depress* prices, in order that they may be enabled to fill their contracts to greater profit. This is among the tricks of trade; and the best way to foil such selfishness, if not fraudful device, is to meet it with truth.

AMERICAN FARMER

BALTIMORE, JANUARY 1, 1830.

TERMS OF THE AMERICAN FARMER.

$1 per annum, in advance; 6 copies for $5; 12 copies for $10; 30 copies for $20.

ADVERTISEMENTS inserted at $1 per square of 12 lines, for each insertion. In case of the continuance of an advertisement for six months or longer, a liberal deduction will be made.

Address, SAMUEL SANDS, Publisher,
At the *State Agricultural Society Rooms*, No. 128 Baltimore-st. over the "American Office," 5th door from North-st.

Maryland State Agricultural Society.

The Quarterly Meeting of the State Society will take place at their Hall, in this city, on the FIRST WEDNESDAY in FEBRUARY, at 10 o'clock, A. M. A general attendance of the Officers of the Society is expected. By order,

SAMUEL SANDS, Secretary.

THE LAST, PRESENT, AND NEXT NUMBER OF THE AMERICAN FARMER.

The December No. of our journal has seldom been surpassed, by any which has preceded it, for valuable practical essays—we have no hesitation in saying, that it was worth to every intelligent reader disposed to advance his own, and the interest of his State, more than the price of many years' subscription. Independent of Mr. Pearce's able Address, and Col. Bowie's Prize Essay, the papers on the subject of the sub-division of fields and rotation of crops—on making Composts from swamp mud—the results of the farming of the venerable Mr. Carmichael, of Queen Anne's—the experiments with Guano, by Dr. Dupuy, of Va., &c. &c., were of the most invaluable character. Those contained in the present No. are not a whit inferior; they are *all* of that practical character, and from the highest sources of information, which stamp them with authority. We defy any man to arise from the perusal of this single number and say it is not worth to him far, very far, more than his year's subscription; and we think we can promise that our next will not be less instructive.

In view of these facts, can we not be excused for asking each of our patrons to render a service, not to us only, but to their friends and neighbors, by inducing at least one of them to order the Farmer for the present year? Of course, we are interested, in a peculiar manner, in this request; but we hope we are not solely actuated by self-interest in making it. We conscientiously believe that no tiller of the soil can read the successful results of the farming operations, which are detailed in our pages, without becoming inspired with a determination also to make an effort to add to his own and the general wealth and happiness of the State. Will our friends who have been benefitted themselves, do us and their neighbors the kindness asked?

☞ *One word more.*—We find that there are some—a few—whose names are on our books, without a credit attached for the current volume. Let such remember that a general settlement is desirable on the occasion of the commencement of a new year. A word to the wise, and the *conscientious*, is sufficient.

☞ The term of a number of our patrons ended with the December No., and, consequently, it is expected that they will immediately renew their subscriptions.

ERRATA—In the address of Mr. Pearce, published last month, in the tenth line from the top of the first column, on page 183, for "*removed* the elements," read "*renewed*."

MR. HOLCOMB'S ESSAY.—The paper from the pen of the Hon. *Chauncey P. Holcomb*, which will be found in another part of our columns, will prove acceptable to all discriminating readers. It discusses, with intelligence and force, the whole subject of the production of wheat, in connection with supply and demand—traces the limits of the wheat producing regions of our entire country—shows their several capacities for growing that grain—directs attention to existing obstacles, which will operate against some, so as to prevent their long continued success in its growth, and proves, we think, as conclusively as opinions based on existing causes, and those to be expected, can, that some of the present wheat-producing States must, ultimately, settle down upon grazing—the raising and fattening of cattle for market. The author repels, with becoming spirit, the imputation, so ungenerously cast upon the capacity of the soils of *Delaware*, *Maryland* and *Virginia*, that they are no longer able to raise wheat—an imputation engendered in selfishness, and promulged, probably, to subserve the mercenary purposes of some heartless speculator, who, to fill his own pocket, would despoil the farmer of the fruits of his well-directed industry. Nor does this patriotic writer content himself with giving a *Roland* for an *Oliver*, but goes farther, and shows that the land owners of the derided States, aided by *lime*, *marl* and *clover*, and animated by that generous feeling of emulation, which ever has, and ever will, crown effort with success, are pushing on their improvement of the soils of their respective States, with an energy that must, in a few years, restore to them more fertility than they originally possessed—a "consummation" not only "devoutly to be wished," but, in our opinion, perfectly easy of accomplishment.

MR. WALLACE'S EXPERIMENTS.—We are indebted to Dr. *Higgins*, our State Chemist, for a paper from himself and another from Mr. *Wallace*, of Cambridge, which will be found in another column. The Doctor's analysis of Mr. W's soil, and comments upon the latter's improvements, as well as the letter of the latter, detailing these experiments, are all extremely interesting. We commend them to the favor of our readers, and while we do so, we present the homage of our thanks to Dr. H. for favoring us with papers of such profound interest to the whole agricultural community. Where facts like these come to support theory, it would be rank heresy to doubt the utility of chemical analysis.

SHEEP HUSBANDRY.—The *essay* upon this subject, for which we are indebted to that sterling friend of the agriculturist, *John Glenn*, Esq., of our city, is so full of practical good sense, that we cannot permit it to go forth to our readers, without saying to all who have taste for sheep husbandry, to read and digest it well. The practice of its author, "W. B. B." is based on economy, which, eschewing extravagance, consults the comforts and wants of his flocks, without unnecessarily making a drain upon his pockets—a species of economy which every one engaged in the culture of the earth should not only study, but appreciate for the truth of its philosophy, and carry out its teachings, as they conduce to the achievement of the greatest good, at the least cost.

WORK FOR THE MONTH.

A NEW YEAR.

Our readers will permit us, before we commence our hints for the month, to salute them with the compliments of the season—to wish them, from the depth of our heart, *a happy New Year*, and many returns of similar advents, to them and to all who shelter beneath their roofs—and that the festive day may never return, but to find them in the enjoyment of every blessing which makes life endurable here, and vouchsafes a purer enjoyment when they shall have seen the last of earth. If there be any condition more than another to make humanity better than that of another, it is that enjoyed by the tillers of the earth. Pursuing the occupation *first* given to man by his *Creator*, as the one by which his wants should be supplied, and his aspirations gratified—an occupation whose paths, when pursued in the true spirit, are paths of peace, and instinctively lead one, if he should not be prompted by higher motives, "to do justice, to love mercy, and walk humbly," in the sight of Him, to whom he is not only indebted for his being, but for that peace of mind, and those countless other blessings, temporal as well as spiritual, that have been so bounteously placed within his reach. Such being the high origin of the rural life, and such its natural tendencies, the man inspired with gratitude, whose good fortune it may be to be fulfilling his original destiny, should be thankful, that beneath his own vine and his own fig tree, he is permitted to pursue the even tenor of his way, exempt from the excitements and temptations of those who dwell in cities—those plague-spots upon morals—where all is sacrificed to ostentation and show—where their indwellers, so often exist through artificial means, and leave behind, to their posterity, not even the inheritance of a good name.

Having made our *new-year's bow*, with a sincere though homely grace, let us conjure you, if you have not done so before, to commence the year with the firm determination to carry on all your operations systematically—to do every thing in the right way and at the right time—to have no work done on your farm or plantation, but what is well done—to permit no concurrence of circumstances to induce you to postpone the execution of work that should be at the instant attended to, to a more distant period, as delays in all human transactions are ever dangerous, and to no class of men more so than to husbandmen. Set down your work in a farm record, have all your intended labors noted a week ahead, taking care to *finish* whatever you may *begin, before you commence any thing else*, as having several things on hand at one and the same time, is very apt to result in neither being done well, if not to delude you into the folly of undertaking more than you can accomplish, a thing in business which is always productive of evil, and never yet, unless by accident, resulted in good. Form the *resolution*, and be sure to carry it out—of always making your arrangements, so that you will not only *be master of your own time*, but that you will always *be able to keep in advance of it*; for time once lost, is never to

be regained; so precious is time to the farmer, that even the loss of a few days in the putting in of a crop, may endanger its success. And while you are making other good resolves, make *this*, and live up to it—provide yourself with good implements of husbandry, and plenty of them, if you have them not already—once possessed of them, be sure to *see, yourself, that they are always kept in first rate order*, ready for work: *Resolve* not to crop more land than your working force will enable you to cultivate thoroughly and well; be sure to plough your land a sufficient depth, to give ample pasture to the roots of the crop you may grow on it, as you may rest assured, that *one hundred* acres, well manured, well ploughed, thoroughly pulverized, and carefully cultivated, will produce as much as twice or thrice that quantity, if tilled without attention to these particulars: and *resolve*, and let nothing interfere with your carrying it into effect—to permit no opportunity to escape you unimproved, of accumulating materials for making manure, and to lime or marl your land; to keep from one-fourth to one-fifth of it always in clover, and plaster it each returning spring.

Now let us see what may be judiciously attended to

ON THE FARM.

Winter Ploughing.—As there are many times during winter, when the ground may be ploughed without injury, therefore, if you have any stiff clayey fields that you intend for spring crops, you should seize every opportunity through the winter, *when the ground is not wet*, to have such fields well ploughed, taking care to *lap the furrows*, so as to ensure the water which may fall, to find drains beneath them to carry it off. By attention to this recommendation, you will, through the action of the frost, have the tenacity of such clay soils broken down, and its texture greatly improved, as there is nothing, except the application of large quantities of *coarse manure, marl or lime*, better calculated than exposure to winter freezings and thawings, to effect this object, than winter ploughing when effectively done, at a time when the land is not saturated with water. If ploughed when wet, your object will not only be defeated, but the soil will remain in bad condition throughout the season.

Surface Drains.—Examine the surface drains in your grain fields, and be careful to have all impediments to the free passage of the water removed, as there is nothing which more tends to prevent the *winter-killing* of your grain, than the keeping it free from flooding through the winter and early spring. Keep your grain beds dry, and the danger of being killed is but trifling. With deep tillage and well constructed surface drains you will be able to avoid loss from this cause.

Working Stock.—As these generous creatures have to perform their labor at this season, through every degree of inclement weather, they should be well fed, comfortably lodged in good straw bedding, curried or combed twice a day, be well rubbed down with a brush or whisp of straw, be watered thrice a day, before each meal, and receive an allowance of salt, or one of a mixture of salt, lime and ashes, at least twice a week. We prefer the mixture of salt, lime and ashes, to salt alone, and oyster-shell lime to that made from lime-stone, for the simple reason, that there is nearly two per cent. of phosphoric acid in the former, a thing very essential when combined with lime, and forming, in fact, bone-earth, to replace the daily wear and tear of the bones of the animal.

Fencing.—Have you had all the posts and rails which you think you may need through the year? If not, send your force into the woods, have the trees felled, cut up and split into proper lengths, then have your posts and rails, in the rough, hauled into your barn-yard and piled up. When these you should occupy the time of your hands, in all bad weather, in fashioning the posts, morticing the necessary holes in them, and pointing the rails, in order that, as soon as the frost is out of the ground in spring, you may go to work with a will, put up the new line of fence needed, and make the necessary repairs to the old. When we tell you, that you should always have fencing stuff ready for use, we speak from an experience of years, which was not gained without cost.

Gates.—If the entrances to your fields, is, through that troublesome, time-eating contrivance called bars, substitute them by gates.

Firewood.—Is your wood-yard well supplied with wood? Have you enough cut and hauled in to last you until the first of next January? If not, delay not a day, but forthwith send your wood-cutters into the forest, and have as many cords cut and hauled in, as will keep you in firewood until next winter. Good fires are not only comfortable things about a house, but as necessary to health as eating is to keep the human system up to its integrity of power and action, while humanity says that God's creatures should not be permitted to suffer, while man can prevent it.

Cow and Cattle Yards.—These should at all times, through winter and spring, be kept well supplied with coarse materials of some kind—the more of them the better, to absorb the urine of the stock, and preserve it from waste. Beneath these coarse materials, there should be at least twelve, eighteen, or twenty-four inches of mould, or earth of some kind, to receive and absorb such of the urine as might not be taken up by the coarse material above. Indeed, we know no better use that could be made of *marl, peat*, or *marsh-mud*, by those who may have either, or all of those substances on their farms, as the whole would be prepared to shovel over in mass by spring, and be as rich a manure as can be applied to any crop needing nutrient and mineral manure. Neglect in this particular, is the reason why so many farmers are without the means of fertilizing their lands. If cattle yards were formed with an inclination to the centre, from the sides, each head of cattle enclosed in such yards, that might be well fed, would drop and void enough from fall to spring, to convert twenty double horse or ox loads into excellent manure—however rich the dung of cows may be, their urine is still richer in all the elements of fertility—in those salts which go to sustain the life of the living plant—infuse vitality into it, and carry it through all the stages of its growth, to the maturation of its seeds. Then why should it be lost through the negligence of the husbandman? Why should he, for the want of the exertion of well directed energy, suffer that to go to waste, which, if saved, would keep up the fertility of his arable land?

Breeding Mares.—These animals, during the inclemency of the winter and early spring, should be the object of the farmer's care. They should be *moderately* fed with grain, oats is best, and plentifully fed with good hay or fodder, and in their stabling treatment, receive every attention paid to the working horses. It is best, that in *good weather*, they should have access to a lot for the purpose of exercise, that being equally essential to their own health, as to the full development and growth of their foals.

Nor should it be forgotten, that, like the other animals, they should be watered thrice a day, and receive semi-weekly allowances of salt, or of the mixtures of salt, ashes, and lime, before recommended.

Young Colts.—It is a mistaken idea that colts should be kept upon a *low diet*, that notion is equally absurd as it would be to keep them upon the high pressure system—to stuff them into a state of diseased obesity. They should, however, have comfortable dry sheds accessible to yards, their stalls be supplied with bedding, receive, at least twice a day, half a gallon of oats, with good hay, morning, noon, and night, be brushed down twice a day with a whisp of straw, and be salted twice a week, or as often receive an ounce of the mixture of salt, ashes, and lime, before spoken of, and thrice a day be watered. With this treatment, there would be a prospect that their growth of bone and muscle would be regularly carried on.

Milch and In-calf Cows.—Care should be taken that these generous creatures should be kept well protected from the weather, in good dry sheds, facing the south, well bedded. The milch cows, in addition to their long food, should receive, night and morning, messes of succulent matter of some kind: the in-calf cows should be well foddered, up to a week or ten days of their time of calving, and receive similar messes as the milch cows. The curry-comb, card, brush, and whisp of straw, applied to their hides daily, is equal to a quart of corn daily, any time: they should also be watered thrice a day, and be salted, as advised for the other stock.

Young Cattle should be kept in a separate yard, be protected by a shed, facing the south, which should be bedded, and open upon a yard wherein they could take exercise. They should receive a sufficiency of hay, fed out to them three times a day, to keep them in a constantly growing state. If you desire them to be of portly demensions, you should give them, in the shape of food, wherewith to form bones, muscles and flesh out of, besides allowances of hay and fodder, or cornhusks and tops. Chopped oats, or oat-meal mixed with cut hay, or cut cornstalks, dried with care, would effect this object. A quart of the chopt oats, or the same quantity of the meal mixed with a peck of the cut hay, fodder, &c., if given once a day, would be enough. They, like the other stock, must be watered, salted, &c.

Corn-Cob Crusher.—Have you one of these useful implements? If not, get one without delay, and have all your corn cobs saved and crushed, as wanted, into cob-meal. A gallon of it mixed with half a bushel of cut straw, moistened with two gallons of boiling water, if covered over till cool enough to be fed, will form an admirable mess for a milch cow. Then why throw your cobs away? Would it not be better to buy a crusher, and work them up into milk, cream, and butter? We think it would. Five bushels of cobs is as nutritive, any day, as half that quantity of meal, if fed as we advise, and will make more muscle, bone and flesh.

The Family Sleigh.—Have you availed yourself of our hint of last month, and had this necessary appendage of every farmer's house, done up, and made to look better than new? If you have not, you should, as one of the strongest evidences of a good man, is to be found in his attention to the comforts and pleasures of his wife and daughters.

Sheep.—These gentle creatures, who both feed and clothe us, require protection, under shelter, during the winter. The better they are kept, the greater and more beautiful will be their fleeces—the more money will they bring into your pockets. Their shed, which should be tight, and face the south, and open upon a yard, must be bedded every few days with straw, so as to keep them clean. They should each receive about three pounds of hay daily—if given a gill of oats, bean, or pea meal, daily, two and a half pounds of hay will answer, or the like quantity of well cured fodder or straw. Two pounds of roots, to be cut up, and two pounds of long provender will answer for a day's ration a head. A trough, with *salt* strewn over tar, should, at all times, be accessible to them. If, however, you supply them with pine bows to browse on, you may dispense with the tar. The yard, which the sheep have access to, should first receive a foot of earth in depth, fashioned into a dish shape, which should be kept covered with straw, from time to time, for the double purpose of adding to the comfort of the sheep, and absorbing their *urine*, and admixture with their solid droppings. Sheep dung and sheep urine, thus protected from deterioration, is among the richest of manures, and we venture the assertion, that a flock of one hundred sheep, furnished with the right kind of material, would make manure enough, from November till May, to fertilize fifteen acres of land.

Corn Sheller.—Have you one of these? If not, get one, and thereby save labor, and save your corn-cobs for your milch cows. We give this advice because we *know* it to be worth something.

Breeding Sows and Store Pigs.—Feed them with *moderate* liberality, and keep them busy at work all the winter in the manufacture of manure for your spring crops. Let their pen be supplied with dry lodgings and bedding, give them access to a yard covered with fifty or a hundred loads of woods mould, marsh-mud, or any other crude substance, and by next spring they will have manipulated the whole mass into most excellent manure. They are industrious creatures, and possess a very happy propensity of providing the food of plants. The solid and liquid excretions of the hog, has a most sovereign virtue in them to promote the growth of plants.

Wagons, Carts, Implements of Husbandry, and Tools.—All these, when not in use, should be kept under cover, always to be in order, ready for service when needed. The notable, economical farmer, never waits until he may want an article, before he gets it repaired, but, *personally*, every day or so, inspects every thing of the kind, and has the necessary repairs timely done. He sees that his axes and hoes are sharp and well handled, his ploughs, his wagons, his carts, his harrows, rollers and cultivators, and every other implement or tool, in good order. He knows where they ought to be, and are; and the knowledge of these facts makes his hands careful, and attend to their duty—whereas, a negligent master most generally has servants and slaves, whose great delight is to *kill time*.

Marl.—Let those who have marl dug and ready for transportation, haul it out and deposit it upon their corn and oat grounds, in bushel parcels, at proper intervals, to be broken down by the frosts of winter, and to be ready for spreading next spring, or if it suits better, spread it over their cow yard.

Poultry Houses, should, if not done in the fall, be thoroughly cleansed and white washed.

Poultry.—Feed them generously—give your hens fresh meat or fish chopt fine, twice a week, with their other food, provide them with sand and ashes to dust in, and old broken plaistering or lime to pick, and you will encourage their laying.

We commend to the attention of our readers, the following communication from an experienced farmer of Virginia.

For the American Farmer.

ON THE ROTATION OF CROPS.

Dear Sir: I notice, in one of your numbers, a correspondent seeking information in relation to the division of *land into shifts;* and, believing it is only by a free exchange of opinions, views and practices that we can hope to approximate perfection, I give the plans and views pursued by myself, as they are rather novel, with what I conceive to be its advantages. The land lies very nearly square—that is, what is, and what is laid off to be, cleared—and will contain 400 acres. It is being laid off in 16 lots, of 25 acres each—a farm road running around each. This arrangement will give 4 lots, 100 acres for *wheat;* 2 lots, 50 acres for *corn;* 8 lots, 200 acres for *clover;* 1 lot, 25 acres for *tobacco* and *sweet potatoes, beets, carrots,* &c.; and 1 lot, 25 acres for *peas.* The *rotation* will be as follows:

1st year—Corn: *Clover* sown when the corn is laid by, with 2 pecks of plaster.
2d year—Clover: *Plastered* in spring; cut once, early; fallowed in August and September for wheat, after the second heading.
3d year—Wheat: *Buckwheat* sown after wheat is cut, either for grain or fallow.
4th year—Clover: *Plastered;* cut twice.
5th year—Tobacco: Well manured, both broadcast and in the hill, with *compost.*
6th year—Wheat: *Turnips* upon the stubble fallow; *composted.*
7th year—Peas: For crop; *broadcast* with clover.
8th year—Clover: *Plastered;* cut twice.
9th year—Corn *again,* and so on.

In addition to the *regular crops,* there is 75 acres of *buckwheat,* and 25 acres of *turnips.* There will be the benefit of 3 *clover* fallows, 2 for *wheat,* and 1 for *corn:* the clean fallow for *wheat,* after *tobacco,* will answer for *seed wheat.* Each one of the lots will remain *two years in clover*—to be cut for hay and seed, *twice* in 7 years—that is, every year there will be 2 lots of *clover* of two years standing, after the seeding year. Land will not only be improved faster by this arrangement, but lots can be selected suited to each crop, or time given to bring it to suitable state, and a much larger amount of provender, in the shape of good clover hay, can be raised for stock—a larger number of which can be judiciously kept, and, consequently, a much more abundant supply of manure prepared.

This arrangement of lots will, without trouble, be found incompatible with grazing land; this will prove another decided advantage; for stock kept up in a suitable lot, and fed upon cut clover, will thrive better, yield more milk, and three times the manure. To remedy even this trouble, as fast as possible, the under growth and smaller trees will be removed from the woodland—this marled heavily, coultered, and sown down in *Kentucky blue grass and white clover.* A beautiful permanent and improving pasture will be secured, and with advantage to the timber trees.

Corn, tobacco, &c., will be manured in the hill, with *composts* adapted to each, as heretofore mentioned, and all the manure applied as a top dressing to *clover,* or to bring the lots into suitable state for its production. The cleared land has been marled at the rate of 150 bushels per acre, and, at each succession of *corn,* will receive another dose upon the clover fallow.

It may be objected to the above *arrangement* and *rotation,* the comparatively small number of acres cultivated in corn—50 acres. But, by this rotation, this amount, properly cultivated, and manured in the hill with *compost,* will certainly yield 3,600 bushels, which is more than is usually raised upon two or three times the land, under other modes.

Plant the corn 4 by 3, leaving two stalks in the hill, which give 7,260 stalks to the acre, or 363,00 to the 50 acres. If the *compost* be used, each stalk will yield one, and many two ears—say one—which will certainly give 3,600 bushels. Now, calculate the difference in the time and expense of so cultivating and manuring 50 acres, and one hundred upon the old three shift system, and the result will be found vastly in favor of the former, besides the difference in the yield. To manure 50 acres in the hill, will require 5,500 bushels of compost, which can be prepared in 10 days, if the materials are convenient, at an outlay of from $25 to $35, and by judicious management, in many cases, without even this outlay.

Cost of cultivating 100 acres of land on 3 shift system, $5 per acre - - - -		$500
Cost of cultivating 50 acres composted, $250		
Preparation and cost of compost, $2 per acre - - - - - - - - - - - -	100	350
In favor of the latter - - - - -		$150
Yield of 100 acres on 3 shift system, 25 bus. per acre, 2,500, at 50 c. - - -		$1250
Yield of 50 acres composted, 3,600, at 50 c. - - - - - - - - - - - -		$1800
In favor of compost - - - - , -		$550

Thus there is an actual making and saving of $700 per year in favor of this rotation, besides having the difference in the amount of time, to devote to improvement or to other crops. Nor is this all: 25 acres are laying in clover, yielding from 50 to 100 tons of hay, besides improving the land in value 25 per cent. per annum. The subsequent wheat crop, after this clover lay, will be nearly double, if sown after corn. Add all these advantages together, and see if, in the course of one year, the farmer is not benefitted more than the value of his usual crop.

The foregoing is the plan laid down (written down, for I write everything down) to govern my future operations, after study, enquiry, &c. I hope, by it, to secure increased annual crops, improved land, more and better provender for my stock, and to realize a better annual income. If, after an examination of its merits or demerits, it should meet the approval of others, I shall be amply repaid for the trouble of this communication. If any one will offer a better, through the medium of the "Farmer" or any other agricultural paper, I shall willingly adopt it. I seek the best plan of securing increasing crops, and improving lands. P.

P. George, Va., Oct. 20th, 1849.

Table of Rotation of Crops—16 *Lots.*

Yr	Corn	Clover.	Wheat.	Tob	Peas	Buckw.	Tu
1	1 2 3 4	6 10 11 12	15 16	7 8 13 14	9	5	
2	3 4	1 2 5 6	8 12 13 14	9 10 15 16	11	7	
3	5 6	3 4 7 8	9 14 15 16	1 2 11 12	13	10	
4	7 8	1 2 5 6	9 10 11 16	3 4 13 14	15	12	
5	9 10	2 3 4 7	8 11 12 13	5 6 15 16	1	14	
6	11 12	4 5 6 9	10 13 14 15	1 2 7 8	3	16	
7	13 14	1 6 7 8	11 12 15 16	3 4 9 10	5	2	
8	15 16	1 2 3 8	9 10 13 14	5 6 11 12	7	4	
9	1 2	3 4 5 10	11 12 15 16	7 8 13 14	9	6	
10	3 4	1 2 5 6	7 12 13 14	9 10 15 16	11	8	

For the American Farmer.

SHEEP HUSBANDRY.

To the Editor of the American Farmer.

My Dear Sir: I send you an essay on Sheep, which I believe may be of use. If you think it will, you have the writer's permission to publish it.

With great respect,

John Glenn.

Baltimore, November 24, 1849.

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To John Glenn, Esq.:

To furnish you, my dear sir, the information you desire upon the subject of sheep husbandry, I can devise no better plan than to describe my own estate, and the system of management I adopt on it, as nearly as circumstances will permit, and which, if fully carried out, as it is not, principally from the want of competent assistance, would, I am persuaded, prove very advantageous. In the main, however, the description is correct; the details respecting sheep are rigidly so; but I have not sufficient bodily activity to see in person to all the details of my other branches of business, and I have endeavored in vain to find it in another, united with sufficient intelligence to make it of advantage to me.

We have here about 2,500 acres of land in one body; one thousand of which is under fence, and about 500 so nearly so, eked out by natural obstacles, as to answer all the purposes of enclosure. About 280 acres of the cleared land is of the very best quality, principally creek bottoms and rich hill sides, rising gradually from them. These I reserve for arable purposes, and raise corn, oats and wheat on them, until they get a little tired, when they are laid down to grass for a year or two, and heavily stocked with sheep, which never fails to restore them, i. e. they are pastured from December to May; the balance of the season, they are reserved for mowing, and to allow the grass to get a good start before the winter sets in.

About 180 other acres of cleared land, part of good quality, but too steep for cultivation, and the balance originally good, but worked down by my predecessors, I appropriate exclusively to pasture, which, in this country, grows spontaneously whenever the land is released from the plough; and on this I keep my sheep from April till December, with the exception of my breeding ewes, which have the run of my meadows and pasture fields near home, until lambing time is over, which generally occupies the month of May. Part of the residue of the enclosed land is in wood, thinned out so as to allow the grass to grow among the trees; and this, with the young buds in the spring, and the wild and varied herbage of the woods, growing in great abundance, where the soil, as with us, is rich to the summits of the steepest hills, affords the very best description of food for sheep, during the season they are allowed to range at large. Having an ample supply of provender, they require very little attention. I either look through them and salt them twice a week myself, or send a boy for the purpose; and it very seldom happens that further attention is necessary, except, perhaps, once in the course of the season, to clip such as have scoured a little after being turned to summer feed, or to trim their hoofs, which, in the higher grades of sheep, grow so long as to impede their motions, and, consequently, impair their condition. Both these operations are easily performed. A pair of sheep shears for the first, and nippers for the last, in the hands of one used to the business, will enable him to get through with 500 in a day, with a lad to hold for him.

These 180 acres of cleared pasture land carried through for me, last summer, 400 ewes and 200 yearling sheep. They are divided into eight fields, and the sheep shifted, occasionally, from one to the other—the ewes being divided into two lots—the yearlings running together. They would have lasted to Christmas, but for the unusually early frost of this season.

The wood ranges I appropriate to my wethers. They kept for me about 200; but double or treble that number would have lived abundantly on them.

My spring lambs, about 350 in numbers, were sent to the hill pastures, with the ewes, in June, and remained with them until they were weaned, in August, when, as I like to have them, from that time, under my own eye, they were brought home and turned upon a clover field of 20 acres, which was reserved for them from harvest; and this, with another field of the same dimensions, kept them in good plight until I commenced their winter feeding. The whole lot ran together, and did well, but, if it had been convenient, I would have preferred dividing them into two. The attention they require is to clip them when foul behind, from scouring, and to add about one-third soot to their usual allowance of salt, for one or two saltings, to check the complaint. I salt them on their paths, in summer, at the rate of about a quart to the hundred.

So much for summer management of sheep, which is a very simple business, and, where you have plenty of pasture, a very pleasant one; for, to my mind at least, there are few more beautiful objects in nature than a thrifty flock of sheep, on a rich green sward. But in winter the case is different; for, though 'tis very agreeable to see them feeding at their racks, it is quite the reverse to fill these in bad weather; and the helpless character of these animals requires, what is always most difficult to be obtained, "*small cares*," and which, so far as my experience goes, none but the master will bestow. The ewes must be divided into lots not exceeding 200—the old and weak separated from the young and strong, and be kept apart in a sort of hospital lot, where they have good shelter and prime feed; the yearlings to themselves; the same with the lambs; and the bucks and wethers may run together, if the whole can be well accommodated; if not, the former must be well protected and provided for.

By the way, I ought to have mentioned, as first in order at the close of the summer campaign, the tupping season, when the bucks are let to the ewes. In a work recently published on the subject we are treating of, by L. A. Morell, of New York, you will find this branch of it treated at length, and to it I refer you for details. My own plan is to let from three to four bucks to the 100 ewes, about the 5th of November, so that my lambs may come in April; and though I may, once in awhile, have a little trouble in consequence of bad weather at that time, yet, as I have a good lying-in apartment, I sustain very little loss, and my lambs, having the whole summer before them to grow in, attain to sufficient size and vigor to get through the winter with little more care than the full grown sheep. I used, before I had a large flock, to put the bucks to the ewes on the 15th of October, and was so successful in raising lambs that I think I will adopt this plan

next fall. The bucks remain a month with the ewes, and are then taken away, as lambs got after this period would hardly get through the winter, without more attention than they are worth.

The estimates for winter keep of sheep vary with every writer on the subject; and you will find from four to fourteen tons of hay per 100 head allowed by different authorities; the last, I believe, being nearest the truth, and making this the most costly food that can be given them—so much so, that I have never adopted it. Mr. Morell's estimates are so recherché, that one would have to carry a patent scale with him, at every feeding time, to weigh out his provender, and a scale of chemical analysis to determine its nutritive qualities. I am not so scientific, but proceed on a plan which the experience of many years has proved to be advantageous to my stock, and profitable to myself—premising, however, that my stock partakes more of the Merino than of the Saxon race, yielding a fleece which brings from 10 to 15 cents per lb. less than the finest class of the latter; but, as my fleeces average 3 lbs., and theirs seldom exceed two, they have the honor, and I the more substantial advantage. Besides, mine are a hardy race, requiring only a straw rick and shelter, such as I shall describe hereafter, to run to when the weather is inclement; while the Saxons, like hot house plants, are fed and kept in close barns, and only allowed to encounter the winter air for an hour or two in the day. Moreover, when mine have served their turn, and yielded me their six or seven fleeces, a little extra pasture fits them for the butcher, who would scorn the emaciated carcass of an aged Saxon.

But to my management. Owing to the drought of last summer, I have very little hay—not over 30 tons—and as this is worth $12 per ton, in Wheeling, where the usual price is $4, I want to save it, if I can, for sale in the spring. In addition to this, I have the fodder of my corn, cut up in September, about 1,000 shocks, and plenty of oats and wheat straw. My sheep are divided as stated above, and I feed, first, to 300 lambs, about 150 lbs. of hay and 3 dozen of oats in the sheaf, at two feeds, morning and evening, mixing the oats and hay; at noon, a bite of hay alone, in severe weather, when the lambs only leave their yard for an hour or so, for water, which, by the way, is *essential* to sheep in winter, though not altogether so in summer. Mine have access to it at all seasons, as every field on my place has a spring or run in it, with the run of a large rick of wheat straw. To 200 yearlings, 2 dozen oats, a mere bite of hay, the run of a straw rick, a little fodder at noon, with the privilege of coming into the lambs' pen when they are turned out, to pick up their leavings, which are always considerable, as they will not eat the oat straw or the stems of the hay. To 200 ewes, in one lot, I give about the same quantity of oats, varying this, however, with all of them, from 8 to 12 sheaves to the 100, according to the weather—about 2 shocks of fodder per day, the run of a straw rick, and access to the pens of yearlings and lambs, where they always find gleanings left for them; and when they have done with them, they are raked up and thrown to the cattle, and form the principal part of their sustenance. I do not, however, keep a heavy stock of this kind—three or four milch cows, two yoke of oxen, and two or three yearlings. To another lot of 200 ewes, which have not access to straw, I allow 8 to 12 sheaves of oats, twice a day, a good supply of fodder, and a bite of hay occasionally, when the weather is very severe; and their pen, when they get hay, is cleaned by the wethers, which are let into it after the ewes are turned out, and what they leave, keeps in good condition two colts. I ought to add that my breeding sows and young pigs subsist on the shattered oats which cannot be raked up. To the wethers, 70 or 80, which, but for the condition of the creek which prevents me from getting them to the feed allotted to them (a field of corn, husked on the stalk), would have cost me nothing, I allow 8 to 12 sheaves of oats per day, and corn fodder, in addition to the gleanings from the ewes; and I will add, that they, as well as the rest of the stock, are in excellent condition.

In my hospital flock, I have about 20 subjects, and 12 buck lambs, put there for the advantage of better keep. To the whole, I allow 6 sheaves of oats per day, and a little hay; but they have the run of a new meadow of 20 acres, and get as much grass as they can eat.

To my bucks, 13 in number, I give 4 sheaves of oats per day, and as much hay as they want—but they are confined to a small yard and cannot get anything else, whereas the rest of the stock having large fields to range over, always find something to pick up, unless the snow is very deep. But, without this advantage, I am perfectly satisfied that sheep having free access to well-saved wheat straw, with a dozen of oats, that will thresh out a bushel, to the 100 head, per day, doubling the quantity in very severe weather, will winter perfectly well, and at much less cost than if fed entirely on hay, even when this is only $5 per ton. They would consume 300 lbs. of this per day, which would amount to nearly 75 cents; and the oats, admitting the average to be 1½ dozen per day, would not be worth 20 cents—allowing, if you saw fit, to add two shocks of fodder per day, worth the cost of cutting and tying up, 6 cents—and yet come much below the cost of hay, to say nothing of the wheat which comes off the same land as the straw.

My fodder, being on the opposite side of the creek, requires my wagon and horses one day in the week to haul over a supply for that period of time, My son, a lad of 15, and a lame boy I have hired at $5 per month, do all the feeding, with a yoke of oxen to haul hay and distribute fodder; and, except at lambing time, when an assistant is required for a month, these two, or one active man, could easily attend 1,000 or 1,500 sheep, and, in summer, have time for all other work connected with this business, such as repairing fences, cleaning the fields of burs, making racks and troughs, &c.

Having carried my sheep through the winter, increasing or diminishing their allowance of food as the season or their condition require it, endeavoring to keep them in good plight, but not fat, as this would render the wool harsh and coarse, I begin, about the end of March, to prepare my ewes for lambing time, by adding to their feed, if I have not pasture, half a bushel of shelled corn to the 200, given in the middle of the day, and spread thinly on the ground, selecting a dry place; and this I continue until the grass, in a field which is shut up early in March, for the purpose, has made a good start. When I have a field in corn convenient, I sow rye on the ground, in August, and run cultivators between the rows, to work it in. This affords feed, where the land is good, in autumn and through the winter, and, in spring, is very valuable to the ewes having lambs. I pasture it to 15th of

April, and then take off the stock, if I wish the rye to mature, and have never found it injured by pasturing. If I want the field, I plough it up, having been more than repaid by the pasture for the cost of seeding it, and, the green crop turned under, leaves the field in fine order for another crop of corn, which our bottom lands will bear for ten years in succession, though I never try them oftener than two.

Morell's book, which is a good one, and which you ought to read, gives all the details of the lambing season. With us, if the weather is favorable, it only requires a little more attention to the ewes. We turn them out into the field, and have a hand to go round among them, during the day, to see that all is right; sometimes, but rarely, he has to help at the accouchment, but this requires no particular skill. The most worrying time is with ewes that will not own their lambs, which is rarely the case, if they have plenty of milk. Sprinkling a little salt on the back of the lamb will frequenly make the ewe lick and nurse it; or the shepherd hobbles the ewe, so that he can catch her readily, and holds her that the lamb may suck occasionally until it has acquired strength, which it does in a day or two, to help itself, and if all other means fail, I give them to the children, who raise them easily by hand, on a little milk from the cow, put their private mark on them, and, when the other lambs are weaned, let them go with them, and dun me incessantly thereafter for the proceeds of their wool.

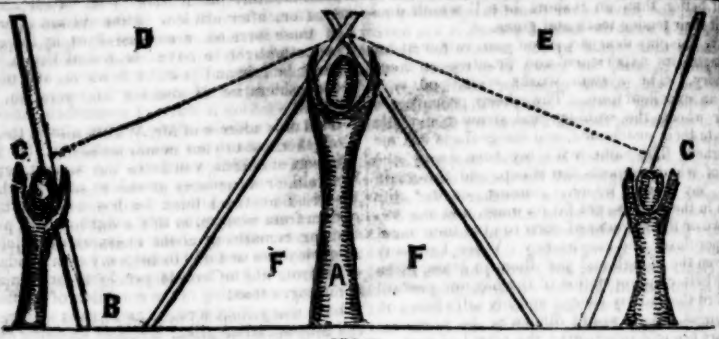
If the weather is mild and pleasant, the yeaning ewes are not housed at night; if otherwise, we put them under shelters, where they bring forth in safety, during the night, even though closely stowed together.

Next comes docking and "altering." The first I like to have performed when the lamb is about ten days old, cutting off the tail quite close to the rump. The latter may be performed at the same time, though I prefer waiting a week or two longer. It is an operation understood by every old negro in the country, and easily performed. I don't think I lose one in 500 by it.

About the 20th of May, we prepare for washing, which, last year, I, for the first time, performed in this simple manner, and, as I heard no complaints of my wool, and could myself perceive no difference in it, I presume it will answer quite as well as the more troublesome and costly methods: I selected a place on our creek, where it was broad and the water deep enough to swim the sheep, which were forced to jump into it from a bank about three feet above its surface. They went over their heads at the first plunge, and swam across. I then allowed them to stand a few minutes, to drain, then drove them round to the same spot, making them travel about an ⅛ of a mile, and plunge again. I repeated the process a third time, and then drove them home to a piece of clean grass land. In this way, one man, with a good dog, to keep the sheep together and force them off the bank, would wash 2,000 in a day; whereas, by the usual method of taking each sheep separately into the water, and then washing it by hand, four men could hardly get through with 200 —grumbling all the time at the cold, clamorous for drink, and exacting two cents per head for the favor they had done me. This plan I shall continue for the future, as it saves both owner and sheep from much annoyance. Mine did not appear near so much worried or exhausted as by the old process. I ought to have mentioned that a very hot afternoon, when the water is warm, and not otherwise, should be selected for this operation.

If the season is warm, I commence shearing in 8 to 10 days after washing. This allows the natural oil to return to the wool, makes it clip and fold better, and adds a little to the weight, which the purchaser sometimes grumbles at, but, where not carried too far, I think he has no right to do so. There are always, in this neighborhood, professed shearers, moving about in search of a job, and I employ two or three to help my own hands, allowing from 2½ to 3 cents per head for clipping and folding, according to the condition of my flock. If I have many stout wethers and lambs and yearlings, I give the latter price; if chiefly breeding ewes, the last is enough; nay, both too much; for a good hand will earn $1.50 per day. But 'tis a dirty, tedious operation, and, as those who perform it are in great demand at the time, we are forced to submit to their terms. At this time, I examine every sheep in my flock, and put such marks as designate their ages, qualities and destination. It is also a good time for clipping their feet, shortening their horns, which sometimes grow into their eyes and heads, and, in short, for ascertaining their condition in every particular. When shorn, they go to their summer ranges, and we have very little trouble with them till the winter sets in. The wool is stored away in a clean loft, the fleeces being carefully piled up, awaiting a purchaser. If we sell, deliverable in Wheeling, sacks are furnished us for the purpose. If we send it abroad, we procure them at a low rate, and pack them by suspending them to a beam, and having a man to stand in them and tread down the fleeces as they are thrown in.

Although I kept a stout flock of sheep, for many years, without shelters, and found them to get along very well, I have adopted them for some time past, and think them advantageous. But, with the exception of one adjoining my barn, 70 feet long by 30 wide, with a loft above that will hold nearly 1,000 dozen of oats, and which I appropriate to my lambing ewes in the spring, and to my lambs in the winter, mine are all temporary, and for two reasons: first, because I cannot afford to erect costly buildings, and, second, because it does not suit my system to have them at a particular spot, whence the distribution of manure over such an extensive and broken a surface as I operate on would be an endless and costly undertaking. I, therefore, erect temporary sheds, on forks and poles, covered with straw, in the neighborhood of such fields as I want to manure —stack near it as many oats as I think will be required—have a corn field in the neighborhood, to furnish fodder, and haul out hay as wanted. If not too remote from my wheat fields, I have the wheat ricked up in a corner of the field where I intend to winter a lot of sheep—have it threshed out by a threshing machine—haul the grain to my barn, very often in the chaff, that we may clean it out of rainy days, and have the straw ricked up as follows—a plan which, for sheep, I believe to be original with myself:



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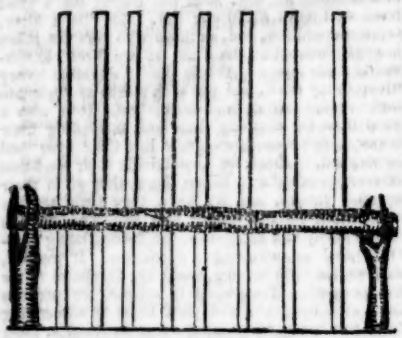

SIDE.

Stout forks, as A, about 7 feet long, are set two feet deep in the ground, and poles laid along them to the desired length, about 50 feet for 200 sheep. To these, rails are laid from the ground, about 2 feet apart, after the fashion of a fodder house. Parallel with this, and sufficiently distant to allow the space B to be about 3 feet, are other rows of forks, likewise supporting poles to which rails are laid, as at C, inclining outwards; and the whole space from D to E is filled with straw, as it comes from the thresher, leaving F an admirable shelter for your stock, which will also do very well at the sides, and affording them, inside and out, 200 feet of rack to feed at. Over every run of the machine (about every 25 dozen), I spread about ½ gallon of salt, which makes the straw more palatable. The straw sinks in these ricks as it is eaten out at bottom; but if it should not, it can be easily pushed down with a fork. When I have not straw enough for a rick of this description, I make the forks a little higher on one side, raise the rails on it, as shown by the dotted lines, and cover it with straw sufficiently to turn rain, filling the other side, and topping it out carefully. This is an excellent shelter, will hold more sheep than the others, and, if it has an opening to the South, keeps them very comfortable. For cattle, I omit the middle structure, bring the sides within 6 feet of each other, give the rails a little more slope, and, if well filled and trampled down, it affords them a constant supply of feed, and a better shelter than a stable. These shelters never require cleaning out or littering, as the sheep and cattle pull down as much straw as covers their dung; and the manure heap composed of these alternate layers of dung and straw requires no comment. A small yard, of about ½ of an acre or less, at one end of which stands the rick, is necessary for excluding the sheep while their racks are being filled. My racks, as I do not feed under cover, are of very simple contrivance. A good oak log is split into stout stakes, about 4 feet long, 8 or 10 of which are driven into the ground, in a circle, sloping a very little outwards, of less than a foot in diameter, and just so far apart as that a sheep can get his muzzle, but not his head, between them. Into these, the sheaf oats and hay are deposited; and I find them to answer every purpose of the more costly contrivance, and to be attended with quite as little waste. If I have a poor spot in a field, I set them on it, and let my sheep run to them, in fine weather, when they do not require shelter. When I can have it done, I have my oats bound in small sheaves, so that one is sufficient for a rack. If large, they are divided, putting as much as the hand can grasp to a rack, and having a few more of these than is absolutely necessary (as they cost little) that the weak sheep may have a better chance.

For the different kinds of sheep, their characteristics, diseases, &c., I refer you to the work of Morell, which is full of valuable details on these points, and, indeed, a capital work, but a little too scientific for plain farmers, who know nothing, and care as little, about physiology, chemistry and anatomy. Of diseases, I know little from experience. When my sheep are properly fed, very few die, and these chiefly the old and infirm; and if this mishap befalls them in winter, as it usually does, the wool is pulled off, and the carcass thrown into the creek, lest it might tempt the dogs and give them an ugly propensity. Soot, spirits turpentine, tar and tobacco, are the remedies I resort to for all the maladies which have hitherto visited my flock: the first for the scours; the second and third for wounds, in the summer, that become fly-blown, and the last for destroying ticks, when they worry the lambs their second spring. But all these matters are fully treated in the book referred to, and I need not repeat them.

A notion long prevailed, and I observe that one of Morell's correspondents still holds to it, that clover is injurious to sheep, and especially to lambs, after they are weaned. My own experience proves it otherwise; and I invariably prefer a field of clover, in full blossom, as a pasture for the latter.

They nip off the blossom in preference, and thrive upon it better than on "short bite," which does not suit their tender teeth and gums.

I have thus, my dear sir, given you, rather at too full length, my experience and practice in sheep husbandry. The system works well, and is, I think, an excellent one. The sheep prepare the soil for wheat; the stubbles and straw contribute largely to their sustenance, and the grain is left me for market. The same with my corn crops, the fodder of which supports the sheep, and the grain fattens my hogs, which, running during the autumn in the ranges, get fat on mast, and only require two or three weeks of corn to give their meat the proper flavor and consistency. When I rest my lands from the plough and put them in grass, I can make no better appropriation of the hay and pasture they afford than to my sheep; and my hill sides and wood ranges, which would otherwise be valueless to me, are brought into use by the plan I pursue.

You have here details enough to satisfy you; and if you can derive advantage or even amusement from them, I shall be much gratified. Avoid giving them too much publicity, lest what I have said of Merell and the Saxons should bring me into trouble. As respects the last, however, I have the concurrence of intelligent wool growers, who have tried them, and are now getting back to the Merino stock as fast as they can, preferring a heavy fleece and hardy carcass to the beautifully fine, but light, wool of the Saxons, which, from its very nature, is incapable of protecting the animal from the rigors of our winters, without more care and protection than is profitable. Errors of grammar and awkward expressions you will, I hope, attribute rather to inadvertence than to ignorance. They might have been corrected, had I not been too busy—perhaps you will think too lazy—to copy my composition; but you must take it in the rough, and can work it into more comely guise if you see fit. It has beguiled me of some tedious hours, that would otherwise have been devoted to my pipe and to sombre reflections; for Mrs. B. goes to the nursery, with the children, directly after supper, and I, after giving a lesson in French to my eldest son, am left alone to "chew the cud of sweet and bitter fancies." Ever yours, W. B. B.

Mr. Whittlesey's Address.

To the Editor of the American Farmer.

I have been anxiously looking to see the admirable and appropriate Address of the Hon. Elisha Whittlesey, delivered before the Montgomery County Agricultural Society, at its last annual exhibition, published in full in the American Farmer. This address has been published at length, in the Maryland Journal of Rockville, (an able co-worker in the cause of agriculture,) the Republic and National Intelligencer at Washington; and wherever read, has elicited high commendation for the amount of practical information, its sound philosophical facts and deductions, and the simple and elevated moral tone with which it is written. I am sorry to learn that your pages have not, and are not likely to afford space, for so able a contribution to the cause of agricultural improvement. To remedy this defect, and inasmuch as I have heretofore noticed the promised publication of several articles, which have not appeared from the same cause (want of space), I propose for your consideration, a semi-monthly publication of the American Farmer, (for, after all, it is in the American Farmer that these articles are generally looked for, and more attentively read) at such subscription price as may be fair and just. I throw out the idea for the consideration of yourself and your numerous patrons.

That this address of Mr. Whittlesey's may not be altogether lost to your numerous readers, I beg the privilege of offering you a few extracts for publication in the next number of the Farmer, being well assured that its sentiments will meet a high appreciation from every tiller of the soil in the land. His opening remarks upon the character and standing of agriculture and of labour, are especially worthy of record, and of consideration; he appropriately commences thus:

"We are assembled to confer with each other on the subject of husbandry, or agriculture. In whatever estimation this pursuit may now be considered, it formerly was esteemed to confer honor and respectability upon the civilians of the highest eminence, and warriors of the greatest renown. The Egyptians venerated the animals employed in the cultivation of the soil; and it was a subject of thanks to their gods by the Greeks, that the soldiers were withdrawn from war, and permitted to cultivate the earth in peace. In our own country we have had one greater than Cato in our beloved Washington; who having obtained an eminence unequalled in the enduring respect and confidence not only of his fellow citizens, but of the civilized world, at no period of his life, whether at the head of a victorious army, or President of the United States, did he prize his enjoyment and honors so high, as when he was ranked among the American farmers.

To me it has been a mystery, that labor, vital to the sustenance of man and beast, when bestowed upon our mother earth, to develope its treasures, to bring forth its bounties in grain and vegetables—its beauties in shrubs, plants, and flowers; to make known its capacity to produce the various kinds of fruits so delicious to the taste and promotive of health; its strength and adaptation to the production of the various kinds of trees, essential for constructing ships and houses, and for fuel and ornament—should be considered by us, in this land of liberty and professed republican simplicity, less honorable than the learned professions, the desk, the toilsome office, the mercantile, brokerage, or other employments; and particularly so than the science of learning to kill our fellow-men by sea and land, whom we are required to consider as our brethren, created by the same hand, and bound to the same eternity. And yet so it is. Our young men and particularly those in cities, seek for almost every employment except the hoe and the plough.

No people of which we have any knowledge, equal Americans in courage and skill in the heat of battle, or patience and energy in the toilsome march, or enterprise in the pursuit of wealth and intelligence. But when we are put to manual labor the weather is too hot or too cold, too wet or too dry for our feeble constitutions and predisposition to disease. One of our first objects should be to *elevate the rank of laboring classes*. In doing this, I would depress no other class or calling;—

"Worth makes the man, and want of it the fellow."

His comparison of the advantages of the East with the West is worthy the consideration of those

restless spirits for emigration, who think they can better their condition by a removal to the west, instead of improving their patrimonial estates in the East.

"The early histories represent the country bordering on the Chesapeake bay and on the rivers discharging their waters in it, as generally fertile. My own opinion has been frequently expressed, that the elements of good living abound in greater abundance on the Delaware and Chesapeake bays, and their tributaries to the mountain region, than in any other part of this continent. The general face of the country is unsurpassed in beauty, and the springs and rivulets contribute to the wants of the agriculturists, and furnish an enduring supply of water for all purposes of machinery and manufacturing. Iron ore, that necessary mineral, is found in abundance near the surface of the earth, and in such localities as to be accessible to your works of internal improvement, and near to market.

The temperature of the climate is favorable to the cultivation of grain and the rearing of stock and yet with all the advantages you naturally possess, emigration has drained your State of many valuable citizens, a vast amount of labor, and some wealth. The fertile lands of the west have held out strong inducements to those on the seaboard to cross the mountains; but when your locality, advantages, and markets are considered, there are substantial motives for remaining on the old homestead, and to reclaim the commons that are now barren. In emigrating west now, it must be considered that the West has receded with a rapidity unknown in the history of any other country. When I crossed the mountains in 1806, the West was at the eastern base of the Alleghany mountains. Some twenty years ago the far West, in the estimation of Mr. Benton, was in the neighborhood of St. Louis, and *now* he is endeavoring to overtake it, by railroad and lightning, on the shores of the Pacific. Lands which were purchased in most of the Northwestern Territory at from one and a quarter to two and three dollars per acre are now worth more than the like quantity in Maryland and Virginia between the Alleghanies and the Atlantic ocean. It is true the facilities for intercommunication have greatly increased, but the expense of transporting a family is now paid to those who own the great thoroughfares. Few, if any, take their own teams to the West from this side of the mountains, and every kind of stock is to be purchased on arriving at the place of destination, whereas formerly emigrants were conveyed by their own teams, which were at hand when they were needed.

If you estimate the expense of going West, and the expense of sending your produce to market, you will find strong inducements to resuscitate your old fields. In these remarks it is not to be understood that I depreciate the advantages of the West, when I attempt to show how richly you enjoy here the advantages of the East. The West is my home; my choice in early manhood; my family; my unfailing support.

Gen. Washington, who had visited most of the Atlantic States, and had seen a portion of the West at different times, and at distinct periods, in writing to Arthur Young, in the year 1791, after remarking on the climate and productions of the North and the South, said, 'Was I to commence my career of life anew, I should not seek a residence north of Pennsylvania or south of Virginia, nor would I go more than twenty-five miles from the margin of the Potomac.' In assigning reasons for the remark he said, 'It is between the extremes of heat and cold; it is not so far to the south as to be unfriendly to grass, nor so far to the north as to have the produce of summer consumed in the length and severity of the winter. It waters the soil and runs in that climate which is most congenial to English grains, and most agreable to the cultivation of them.'

Montgomery county and the adjacent territory is within the bounds of the country designated, by the wisest man of the age, as the most desirable of any within this extensive and flourishing republic."

His remarks upon the formation of agricultural societies, and the application for aid from the State and National government, is well timed, and most ably and forcibly stated:

"Associations, when harmonious, give strength and energy to the various plans and objects to which they may be directed. "A three-fold cord is not easily broken." The establishment of agricultural societies was a cherished object with President WASHINGTON. In his letter to Sir John Sinclair, in 1792, he says: "It will be some time, I fear, before an agricultural society, with congressional aid will be established in this country. We must walk, as other countries have done, before we can run. Smaller societies must prepare the way for greater; but, with the light before us, I hope we shall not be so slow in maturation as older nations have been." He mentions that an attempt was then maturing to establish a State society in Pennsylvania.

In his speech as President of the United States, on the 8th of January, 1790, when presenting to Congress the great interests which merited their consideration, he said: 'The advancement of agriculture, commerce, and manfactures, by all proper means, will not, I trust, need recommendation.'

This is a construction given to the Constitution, at the very commencement of the Government, by the President of the Convention, in regard to the three great interests of the country; and, in enumerating them he placed *agriculture* as the first, which is the position it should occupy; and, in truth, it is the basis of the other two.

In his speech of the 7th of December, 1796, he brought the subject of agriculture more fully to the attention of Congress. The plan he submitted was, to establish boards, at the national expense, 'charged with collecting and diffusing information.'

The committee appointed on this part of his speech reported on the 11th of January, 1797. The first sentence asserts the important fact, 'That the encouragement of agriculture is an object highly worthy the public attention, as it constitutes the most useful employment of our citizens, is the basis of our manufactures and commerce, and is the richest source of national wealth and prosperity.'

In a letter addressed to Sir John Sinclair, on the 6th of March, 1797, two days after his second Presidential term had expired, Gen. Washington said:

'I am sorry to add, that nothing final in congress has been decided respecting the institution of a national board of agriculture, recommended by me at the opening of the session; but it did not, I believe, proceed from any disinclination to the measure, but from their limited sitting, and a pressure of what they conceived more important business. I think it highly probable that next session will bring the matter to maturity.'

Mr. Jefferson, in his first inaugural address, recommended the encouragement of agriculture and commerce as its "handmaid."

My advice to you, and to every farmer in the republic, is, to petition Congress until a system is established which shall place this interest on a footing with the other great interests of the country which are fostered and sustained with prudential care, and, in regard to commerce, with great expense.

Ascertain the sentiment and feeling of the candidates for Congress on this subject, and, whoever is elected, disregard all excuses that there was not time to mature a plan; unless incontrovertible evidence be produced that the time was not consumed in needless debate, nor in adjournments from Thursday to Monday, nor in daily adjournments immediately after the journals were read.

If the first application shall not be favourably considered, by concert, present the next with *two millions of signatures.*

A national board will not dispense with, nor supersede, the organization of county and State agricultural societies. These are now being extensively established, and are patronized in some of the States by annual appropriations from the State treasuries. Each has its appropriate sphere of action. The county organization brings the subject immediately before the people; they can conveniently attend and participate in the exhibitions and discussions; and seeing what others have done, by improved stock and modes of culture, they are prompted to vigorous action.

The invitation by your excellent Chairman of the Executive Committee to the farmers, mechanics and ladies, to bring *something*, was quite appropriate, and it has been responded to in a manner highly gratifying, giving an earnest that you have devoted yourselves to the work. There are specimens of needle-work and of hosiery, of family manufactures, that cannot be surpassed. The names of the ladies who have excelled will be recorded on the books of the association, to be transmitted to posterity, and their work commended as worthy of imitation."

I should be very glad to follow this interesting address throughout, to give you extracts from his practical advice to farmers, his remarks on oxen, upon draining land, and upon Agricultural education: but fearing that I may trespass upon your columns, with one or two more extracts I will conclude.

How to increase population he says:

"The best way to increase your population, to reclaim your lands, to enable every one to have a competence, to abolish your poor-houses, to build school-houses and churches, is "not to despise small things." More should be done within your own families, and thereby save much money that is now needlessly spent.

As far as you can, rear up and encourage small manufactories—they will create villages, which will furnish a steady and good market for all your productions. Go to New England, and see the source of their wealth; the mines from which the people there are building ships, steamboats, railroads, and are able to engage in every good work —*giving eyes to the blind, tongues and ears to the mute, an* ASYLUM *to the outcast widow, employment and intelligence to the orphan, and the gospel of peace and salvation to the destitute in the isles of the sea and in the four quarters of the globe.* You see the effect of manufacturing villages at the Laurel factory, Ellicott's Mills, and other places."

To make land fruitful he remarks:

"In selecting stock, I advise you to confer with the public-spirited gentlemen, members of this society, who have devoted much time and money in obtaining information and making purchases. We find in northern Ohio, that the common breed, for the dairy, when well fed, is the most profitable. The greatest waste of labor, time, and money, is in *working poor land and keeping neglected stock.* There is nothing wanting but union of action and perseverance, to make your cultivated lands fruitful fields, to build up flourishing villages, and to increase your population and wealth.

If I were a young man, and wished to make myself the most useful to my fellow-men, and to enjoy the most independent, peaceful, and quiet life, I *would be a husbandman—a tiller of the ground."*

The last extract I will make, I especially commend to those citizens of your own city, who think they can prove that those farmers of Maryland west of Baltimore who send their produce to market over the Baltimore and Ohio Rail-Road, are the *"beneficiaries"* of that enterprise:

"The State of Maryland has, at all times, been distinguished for her enterprise in internal improvements. As soon as Congress commenced the national road at Cumberland, to connect the tide waters with the navigable waters of the West, under the compact with the Northwestern territory, measures were taken by Maryland to connect Baltimore with Cumberland; and if they had not been crowned with success, the large expenditures of the United States, in the old States of Maryland, Pennsylvania, and Virginia, from a fund derived from sparse settlements in the new States, and principally in Ohio, would have been without much public utility. This road passed through the ancient city of Frederick, for a long time a military post, and the flourishing town of Hagerstown; and many villages sprung up by the immense travel turned into this channel. When this road was completed, Maryland had accomplished more than any other State in the Union to connect the West with the seaboard. The Empire State having constructed a canal to connect the lake with the Hudson, Maryland contributed liberally towards the Chesapeake and Ohio Canal, and was the first to embark in the improvement made in transportation and travel by railroads. *It so happens that the Eastern Shore and the country bordering on the Potomac and bay, are not immediately interested in any of the works spoken of, and the canal and railroad were* INJURIOUS *to the whole country through which the turnpike road was constructed;* and *yet* for the benefit of *Baltimore* and the *western country*, Maryland has made *voluntary sacrifices*, from patriotic motives, such as no other State has made under similar circumstances."

Such is the opinion and the language of an eminent statesman: a distinguished and an observant man, who seems just as well acquainted with the position and the policy of Maryland, as with that of his own adopted state of Ohio.

FARMINGTON.

[We promised and fully intended before now, to make copious extracts from the address of Mr. Whittlesey, but the pressure on our pages since its delivery, has prevented us from doing so. The suggestion of our correspondent for a semi-monthly issue of the *Farmer*, with an increase in price, has

frequently occurred to us, but we believe it not advisable to make the change. We have, however, for every number, nearly as much matter laid off as would fill a double sheet, and we are frequently at a loss to determine what we must omit. It was on this account we announced some months ago, the impossibility of our publishing the various addresses delivered before the several Societies of our own and other States, which ought to be preserved in a permanent form, and which should be published in a book of *Transactions*, similar to that issued by the N. Y. and other societies.]

CULTIVATION OF THE CAULIFLOWER.

HARMONY, *Kent County, Md., Nov.* 28, 1849.

To the Editor of the American Farmer.

Dear Sir,—Herewith you will please to accept a cauliflower which I beg to offer for your liberal criticism on "taste."

In the April number, of the "Farmer," I took occasion to submit some remaks on the cultivation of the Tomato, which I hope some of your subscribers have tested, and I trust their experience will corroborate my plan. In a private *note* to yourself, I mentioned that I had some remarks to make on the cauliflower, which may prove of sufficient interest to find a place in your columns, and also, some consideration from those of your readers who cultivate (and every one ought), good vegetables. Urgent and unavoidable demands upon my time, and a desire to add the test of another experiment, led me to defer the obtrusion of my suggestions till now, and I give, at this time, the manner and in the specimen sent the matter, of my subject.

I obtained the cauliflower seed from Messrs. Ault, South Calvert street, Baltimore, who invariably supply genuine and superior seeds, and always "true to name." The seeds were sown in the beginning of April in a box and placed in the kitchen window, and attended to as ordinary cabbage seed. As soon as the plants were large enough to bear transplanting, they were placed at the distance of three feet each way and "*tended*" as cabbages in all respects until the head had attained the size of a cabbage before heading. On examination of the stock there seemed to be no tendency to flower, and I had every one loosened by putting a spade about six inches from the stock and inserting it sufficiently deep, so as to loosen the plant without displacing it; this left some of the lateral roots unhurt, so that the main one being suspended, there was enough left to prevent the plant from dying. I repeated this operation three times, once in August, once in September, and once in October, still the tendency was to form the outer leaves in great exuberance; then is the critical time. In the latter part of October, I commenced to break a few of the leaves and turn them over, and down upon the embryo flower; pursuing this with less caution, the aliment necessary to supply the great growth of leaves is converged to the flower and the leaves by turning them upon it; seclude the light, and the flower is more compact, better bleached, and less liable to "run to seed." The portion of the leaf to be broken is about the middle of the large vein, and you should begin to break the third or fourth leaf from the bud. The manner of securing the cauliflower for winter use is very simple—merely transplanting in a dry cellar and retaining as much earth as possible attached to the roots, adding some more, so as to preserve the roots from decay. Those intended for winter use, do not require to be loosened, as they should be planted later. Hoping that the simplicity of the process of cultivating the cauliflower, and the delicacy of its "snowy spig" may be a sufficient compensation to many of your readers, for the perusal of this communication,

I am, dear sir, your ob't servant,
R. J. MEANY.

GUANO FOR MELONS, &c.

To the Editor of the American Farmer.

Will you permit me to aid you in answering the enquiry of one of your correspondents respecting the adaptation of guano to the production of water-melons? I have been in the habit of using it for several years, and can testify to its value, not only for melons, but for the whole tribe of cucurbitaceæ.

The mode of application which I prefer is this: when the ground is prepared and checked off, remove the loose soil at the intersections of the furrows, leaving clear spaces on the substratum of not less than 18 inches in diameter. Upon these spaces sprinkle guano at the rate of one pound to eight hills. Follow with a hilling or grubbing hoe, and incorporate the guano with the subsoil; then draw the loose earth back, and finish by chopping a small quantity, a spadefull or less, of well rotted manure into the hill near the surface. Guano, placed near the surface, will remain almost inert, and buried deep, as I recommend, it will be too remote from the seed to give the young plants the quick start which is indispensable to an early crop of melons. The small quantity of manure near the top of the hill answers the purpose of immediate forcing, and enables the roots to strike rapidly into the guano, when the growth of the vines will be stimulated to such a degree as to cause them to mature their fruit a week or ten days earlier than they would do from either manure or guano alone. Melons equally fine may be raised from nothing but guano, applied in the manner directed; but they will not be an early crop, from the fact that the plants remain almost stationary until the roots reach the guano. Last year, from such a preparation as is now recommended, I had as fine a crop of melons as I ever saw; and they began to ripen at a very early period in the season. Two years ago, I had them nearly or quite as good, from guano alone; but they were late. This year the crop was almost a failure, from the wetness of the season, which caused the vines to die. Cantelope melons, however, have produced abundantly, grown entirely with the aid of guano.

Where manure is scarce, I have no doubt an admirable compost might be prepared, consisting of guano and rich earth. It should be made several weeks, or even months, before it is wanted for use; and the heap worked over frequently in order to bring it into a suitable condition. Such a compost would doubtless supply the place in the hill which I have assigned to the manure.

For pumpkins, squashes, cymblins and cucumbers, when it is not particularly desirable to have them early, nothing more is necessary than to prepare the hills with guano.

Petersburg, Sept. 1849. T. S. P.

A correspondent of the Leonardtown Beacon, gives an interesting sketch of a visit to the celebrated Reybold family, of Delaware, which we have laid by for insertion in the Farmer.

PRINCE GEORGE'S CO. EXHIBITION.

The annual exhibition took place at Upper Marlbrough on the 31st Oct. and 1st Nov., and was well attended. The public spirited farmers and planters of Prince George's are capable of taking the lead in such undertakings, and they evince no disposition to allow their sister counties bear off the palm from them. Dr. John H. Bayne was elected President of the Society for the ensuing year, in place of W. W. Bowie, Esq., who declined a re-election. There was no Address delivered before the Society, in consequence of some misunderstanding in relation to the orator of the day.

The following is an abstract of the reports of the several committees.

Horses and Mules.—To W. D. Clagett the first premium for Tom Tough, the best horse for all purposes. Col. Oden Bowie, for Forest Maid, the best mare for all purposes. Thos. J. Sasscer, for 2d best mare for all purposes. Col. Oden Bowie, for Mary Jane, best filly of any blood, between 1 and 2 years old. To same, for Alice Truelove, do 2 and 3 years old. Edwin Gott, for best pair matched horses. Col. Oden Bowie, for Barney, best single harness horse. Robt. C. Brooke, for best saddle horse. Wm. N. Dorsett, for Boston, best do. bred by a member. Chas. B. Calvert, for best pair of mules.

Thorough bred Cattle.—To Chas. B. Calvert, the premium for Gilderoy, the best Durham bull over 3 years old. Same, for Montrose, second best do do. Same, for Rosette, best Durham cow over 3 years. Same, for second best do do. Wm. D. Clagett, for best Durham bull between 2 and 3 years. Col. Jno. H. Bowling, for Aquasco, Durham bull calf between 1 and 2 years. The committee had much difficulty to decide between the calves of Messrs. Bowling, Bayne, and Sasscer. Wm. A. Gunton, for Prince George, between 4 months and 1 year. The committee also had difficulty to decide between the claims of Messrs. Gunton, Carver and Hill. Chas. B. Calvert, for Alfreda, best Durham cow, between 2 and 3 years. Clement Hill, for Rosa Lee, best Durham heifer, between 1 and 2 years. C. B. Calvert, for Julia, best do under 1 year. Col. W. W. Bowie, for best Devon bull. Same, for best Devon cow between 2 and 3 years. Same, for best Devon bull calf, under 1 year. Jas. Mullikin, for best Devon heifer, under 1 year. Same, for best Devon cow, over 3 years. Wm. A. Gunton, for best Devon heifer, between 1 and 2 years. Chas. B. Calvert, for each of the Alderney heifers, between 1 and 2, and 2 and 3 years.

Common Cattle.—To Clement Hill, for best cow of any breed other than Durham and Devon. Robt. C. Brooke, for best bull, between 1 and 2 years old. Wm. A. Gunton, for best bull calf, and Wm. H. Tuck, for each of the best heifers, between 4 months and 1 year, and 2 and 3 years. Geo. W. Hilleary, for best do between 1 and 2 years. R. O. Mullikin, for best pair unbroken steers, between 2 and 3 years, and to Dr. Richard H. Clagett, for best beef.

Sheep.—To Chas. Hill, for best Leicester buck, Col. Oden Bowie, for best Bakewell buck, $2. W. W. Bowie, for best buck of any other breed, $2 George W. Hilleary, for a pen of 5 Southdowns, and R. S. Hill $2 for the best ewe of any other breed, and $2 for the best pair of lambs of any breed owned by a member.

Hogs.—To Oden Bowie, the premium for best brood sow, and also for best litter of pigs, and to Stephen Belt, for best barrow.

Tobacco.—To J. W. & W. Wilson, the 1st premium for best hhd. Tobacco. Wm. Cross, 2d do for 2d do. Jos. H. Wilson, 3d do for 3d do. Jas. Owens, 4th do for 4th do.

Household Manufactures.—To Mrs. Dorinda Hatton, the premium for the best 5 yards home spun cloth. Mrs. Stephen Belt, for best home made quilt. Mrs. Benj. Berry, do counterpane, the material grown, spun and wove in the family. Mrs. S. L. Brooke, best half doz. knit stockings. Mrs. S. Belt, best cotton knit stockings. Mrs. B. Berry, best home made wine and cordial. Mrs. W. D. Clagett, for bounce. Mrs. Wm. B. Carroll, for preserves and green pickles. Mrs. Dr. Clagett, for yellow pickles. Mrs. M. S. Plummer, for brandied fruit. Mrs. G. W. Hilleary, for butter. Mrs. S. M. Mullikin, for handsomest silk embroidery. Miss Elizabeth Hall, for worsted embroidery. Wm. Harper for best display of manufactured goods. Saml. B. Anderson, for servants shoes. Mrs. W. B. Hill, for best wheat bread. Mrs. R. C. Brooke, for pound cake. Mrs. S. A. Brooke, for sponge cake. Mrs. Jos. B. Hill, for home made carpeting. Miss Melvina Early, for best home made straw hat, and to Miss Cornelia Early, for second best straw hat.

The committee speak in high terms of home made cloth exhibited by Mrs. Dr. Clagett, Mrs. Jas. Mullikin, and Mrs. J. Hy. Waring—of a beautiful Port Folio, by Miss Waring—of home made soap, by Mrs Benj. Berry—and of a "bachelor's cake" by Col. Oden Bowie, which cake all seemed to enjoy, and respectfully recommend him to the smiles of the single ladies, "as the richest premium they could award him."

Fruits and Honey.—To Dr. J. H. Bayne, the premiums for the best half bushel Apples, and the best varieties of fruits—Mrs. John Contee also exhibited a lot of very fine apples—To G. W. Hilleary, for the best 5 lbs. Honey—To Mrs. M. S. Plummer, the committee recommend, as there were no pears exhibited, that the premium be awarded for a lot of very fine peaches.

Agricultural Implements.—To Fred. Grieb, the premium for the best horse power with threshing machine attached—to R. Sinclair & Co. for the most numerous collection of agricultural implements—to Jno. Bamborough for the best fanning mill, which the committee says, "not only thoroughly separated the wheat from the dirt, cockle and various kind of seed, but collected in seperate boxes the several kinds of seed, so that the wheat, timothy seed, cockle, &c. were all carefully divided, as though it had been done by hand."

Poultry.—To Mrs. Stephen Bell, the premium for the best pair of turkeys—to Mrs. Jno. Contee, for the best pair of geese—to Mrs. W. W. W. Bowie, for muscovy ducks—to Mrs. G. W. Hilleary for puddle ducks—and to Mrs. B. Berry, for the best pair of fowls.

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Col Capron's crops.—In our last we published the report of the committee on agricultural productions. The certificates are published in due form in the phamphlet copy of the proceedings of the Society, and sworn to; we annex the substance of them, and the method of cultivation as furnished by Col. Capron:

Corn.—The field of 59½ acres from which was

taken the five acres of corn, is partly low alluvial ground, reclaimed by French draining from a wet marsh, and partly upland old fields, reclaimed by manuring and deep ploughing. The field had been in grass for several years, and was ploughed up last fall deeply. The upland was manured before ploughing, with stable manure. The last spring it was well harrowed, cross-ploughed, harrowed again thoroughly, and rolled—covered with 100 bushels ashes per acre, and planted in drills 5 feet apart, dropping 24 inches, with Sinclair & Maynard's corn planter. As soon as the corn made its appearance, the two-horse harrow was started with the centre tooth out, running with the rows, and followed with the corn rake—raking right and left through the corn. The cultivators were then started and kept going until laid by—followed after the second working with the hoes. The corn was planted from the 24th April to the 2d May. The yield was on one acre 91¾ bushels shelled corn; on the 2d, 94 94-100; on the 3d 109 56-100; on the 4th, 116⅞; and on the 5th, 117⅞ bushels shelled corn, (yellow Oregon variety.)

Wheat.—The product of one acre of wheat, was 39 bushels and 36 lbs. of prime wheat; of 5 acres, 170 bushels and 50 lbs. prime wheat, weighing 60 lbs. to the bushel, which was carefully measured, and certified to in proper form. This field was a clover lay, having been previously improved with lime, ashes and other manures—ploughed last fall in September—turning under about 300 lbs. Peruvian Guano per acre—rolled and harrowed thoroughly—seeded with white blue stem wheat harrowed in—and grass seed, rolled. Finished seeding 6th September.

Sugar Beets.—From a quarter of an acre of land, from the centre of a field of about 12 acres, the product was 130 bushels sugar beets. The field was a clover lay, of two years standing—ploughed up early in May with a strong team 8 inches deep, followed by the subsoil plough with three yoke of oxen—stirring the soil to the depth of 21 inches—turning under with the first plough 200 lbs. Peruvian Guano per acre—rolled and harrowed the ground thoroughly—planted manglewurtzel seed in May, which failed entirely—replanted with sugar beets 23d June. The crop according to the above certificate, 520 bushels per acre. A severe drought followed the planting, which lasted through the season.

Timoth hay.—The product of one acre of timothy hay was 2 tons and 1850 lbs; and of five acres, 13 tons 625 lbs. regularly weighed and certified and sworn to. The field was an old sod, of four years standing—improved with lime and ashes—top dressed upon the sod in winter of '38 '39 with about ten ox cart loads long manure per acre—average for the whole field 2½ tons per acre, within a small fraction.

Potatoes.—On 2½ acres, there was produced 396¼ bushels potatoes, (158 6-10 bushels per acre.) The field was a clover lay of two years standing, (part of same field with sugar beets.) Ploughed up about first July—turning the sod upon the potatoes placed in every alternate row—subsoiled 21 inches below the surface—manured with Kettlewell's fertilizer at the rate of two barrels per acre, strewed in the drills—rolled and harrowed—worked with the cultivator twice after the potatoes were well up. The planting was followed with a severe drought which lasted through the season.

Robert C. Brookes' Potatoe crop.—From an eighth of an acre of land, was produced 39 bushels and half a peck—which was duly certified to. Mr. B's mode of cultivation was as follows:

The land was fallowed out of turf on the 18th April, about two weeks after harrowed, and the drills laid off about two feet and a half apart; the potatoes then planted whole about 28th of April. After they came up they were worked with the corn cultivator, about two weeks after planting, and followed with the hoes immediately, which was the only work they had.

Michael B. Carroll's Corn crop.—From 1 acre, the product was testified to be 18½ bbls. ears of corn. The land was fallowed in the fall with Eastman's ten inch three horse plough; in April it was cross-ploughed with a double horse plough (same size plough,) the land checked and planted four feet each way, and then dragged down, then cultivated twice, and followed by the hoe, then cultivated twice more and rounded, and then ploughed with the bar to the corn, and then laid by with the cultivator.

Wm. N. Dorsett's Potatoe crop.—On ¼ of an acre, the product was 34 bushels. On a small portion of the land wheat straw had been ricked—another portion sheep were folded last winter—the remaining portion was taken out of clover. It was in May the land was broken up with Prouty & Mears' No. 3 plough from five to six inches deep, harrowed over. Some time late in the summer the land was passed over with the cultivator—laid off with plow, north and south, in rows four feet apart—the potatoes were of the variety called the Mercer—were of small size—none larger than a hen's egg—cut in three and four pieces each, the pieces dropped ten and twelve inches apart—and being rolled in plaster and covered with the plough. The potatoes were ploughed when from four to six inches high, and about ten days or a fortnight after which they were worked with the cultivator, and about ten days afterward they were worked again with the hoe, and laid by.

Samuel H. Dorsett's Wheat crop.—On 12 acres of land, an average of 32 bushels was produced. The land was ploughed the latter part of August, and then harrowed, and seeded on the 28th and 29th of September—one bushel and a half of wheat to the acre, and put in with three mould board ploughs.

Samuel H. Dorsett's Corn crop.—On one acre and 25 perches, the yield was 18¾ bbls. The land was ploughed in April, then harrowed, then ploughed four feet by two and a half, then harrowed, worked with a cultivator, then hoed, cultivated twice more, ploughed, and then cultivated. There was put on this land one hundred and twenty-five bushels of slacked ashes before ploughing it.

Oden Bowie's Potatoe crop.—On ⅛ acre of land the yield was 30½ bushels. Mr. Bowie remarks:

Had the potatoe crop generally not been materially lessened this year by the severe drought, I should not have considered that the produce of the eighth of an acre certified to above, would have justified me in competing for the premium offered by the Society. But as the yield in the crop is believed not to have been an average one, and as I consider it the bounden duty of every member of the Society, to contribute as much as is in his power to promote the object for which it was instituted, I shall proceed to state the manner of cultivation, first premising that I measured with a yard EXACTLY six hundred and twelve square yards, which is a fraction less than an eighth of an

The land from which the potatoes were taken (a sample of which are herewith exhibited) was closely pastured during the summer of '48 and spring of '49. About the last of May it was followed to the depth of about nine inches, and well pulverized by repeated draggings. It was then laid off in drills about three feet apart and five inches deep, and the potatoes, which were grown in one of the Northern States, were cut in setts of the usual size, taking care to leave two eyes to each sett, well rolled in plaster, and dropped about twelve inches apart in the drills, and well covered with the hoe. The part of the patch which has been dug, was neither manured in the hill or broadcast, and from this fact it is believed it will not produce as well as much the larger part, which was manured in the drill with tobacco stalks and stable manure, but which the wet weather has prevented me from digging. When the vines were about six inches high they received their working with the single bar plow, throwing the furrow to the potatoes. So soon as they began to blossom, they received another working with the hoes, when all weeds and grasses which had begun to show themselves were carefully exterminated, under the conviction, derived from experience, that unless this were done, the tubers would not attain their full size or produce as well in quantity. They were subsequently laid by with the cultivator, and the land upon which they were grown is as free from filth or noxious weeds of any kind as an adjacent cut of tobacco land, which was worked in the customary manner. I have only further to add that the potatoes were of the white Mercer variety, and that in measuring them the half bushel was heaped in every instance.

The following officers were elected for the ensuing year:

President.—Dr. John H. Bayne. *Vice Presidents*, W. W. Bowie, James Somervell, Clement Hill, Wm. H. Tuck, T. W. Clagett, Saml. H. Dorsett, Aug. R. Sollers, Sprigg Harwood, Col. Wm. D. Bowie. *Cor. Secretary*, Tho. F. Bowie, *Rec. Secretary*, Dr. C. Digges. *Treasurer*, Geo. W. Wilson. *Executive Committee*, Robt. Bowie, Wm. N. Dorsett, Oden Bowie, Richd. S. Hill, Jas. Iglehart, Dr. H. Wilson, H. C. Scott.

TALBOT COUNTY CATTLE SHOW AND AGRICULTURAL EXHIBITION.

The annual exhibition of the Talbot Co. Societies took place on the 31st of Oct. and 1st and 2d of Nov., at Easton; and we are gratified in being enabled to state that the exhibition was the most successful which has been held by the Societies under their management it had been gotten up. The attendance of visitors was large, and the ladies were present in full force. The receipts from the exhibition were sufficient to meet all expenses, which, we understand, is the first time that such has been the case, the members of the societies usually incurring considerable expense, in footing up the bills in the end. We had the pleasure of being present during a part of the time of the show, and cannot but express the high gratification we experienced at what we witnessed. The display of vegetables, we venture to say, has seldom been surpassed any where, and put to shame our meagre exhibition at the State show, as well in quality as quantity; *but we will beat them next year.* The exhibition of *Stock*, a branch of husbandry of which Talbot may justly be proud, was of a character that would have done credit to any section of our Union, In the pens of Jas. N. Goldsborough, Col. N. Goldsborough, Gov. Stevens, E. T. Paca, S. Chamberlain. Capt. Buchanan, K. Owen, M. Goldsborough, and T. Tilghman, were as fine specimens of sheep as were probably ever raised in the U. States. The committee to award the premiums, in their report, unhesitatingly awarded to a splendid Cotswold buck, obtained by E T. Paca, from Col. Ware, the first premium for long wools. Mr. Paca, says the committee, "also exhibited four beautiful lambs of the same breed, which we strongly recommend to the judges of discretionary premiums. More admirably proportioned animals we certainly never witnessed at that age, and the quality and length of staple of the fleeces were very superior. To Martin Goldsborough the second premium for his buck. To Jas. N. Goldsborough the 1st premium for the four best ewes. Mr. Goldsborough's lot of ewes were decidedly the finest specimen we ever witnessed on this shore. Our distinguished sheep husbandman and esteemed friend, Gov. Stevens, also exhibited a magnificent pen, and it was with some little difficulty we decided. Mr. Turner, of Baltimore, expressing in the most glowing and emphatic terms, his admiration of Mr. Goldsborough's beautiful sheep, declaring he had never seen anything to surpass, scarcely ever to equal them, it very naturally confirmed us the more strongly in our opinion, as he is undoubtedly an excellent judge. To Gov. Stevens we award the second premium for the 2d best lot of ewes. To Gov. Stevens we also award the 1st and 2d premiums for the best and 2d best pen of wethers—the Governor's last named sheep were truly superb; there was nothing to compete with them for the first, scarcely for the second; they were, in fact, all first. Several gentlemen had fine pens of the same breed (long wools), Col. N. Goldsborough amongst the number, but as the duty devolved upon us to give to the most worthy, we could not do otherwise, even had we been so disposed, than to award both premiums to our enthusiastic friend and fellow citizen."

These sheep were all of the Cotswold, Leicester and Bakewell breeds, or their crosses. The testimony of so competent a judge as our townsman, Mr. Turner, is indeed a feather in the cap of our excellent young friend Goldsborough, worthy of being worn. The pens of Gov. Stevens merited all that the committee say of them; they were *truly superb;* and we trust that, at our next State fair, the Governor will give our Western Shore friends an opportunity of seeing such in our pens. Of South Downs, the committee say, that they "missed the choice selections of S. Hambleton, Sr., whose flock, we regret very much to learn, came very nearly being destroyed by the dogs of St. Michael's. To Samuel Chamberlain's South Down buck, we award the 1st premium, its age but a trifle over a year, and fine proportioned, at once satisfied us, it was the handsomest specimen. To Kennedy Owen, the 2d premium for the 2d best buck. To Capt. Buchanan, the 1st premium for the best lot of ewes; they were of finer sized carcass and more beautifully shaped than any thing on the ground. To Gen. T. Tilghman, the 2d premium for the second best ewes. For the best lot of wethers we give the first premium to James N. Goldsborough; the 2d premium to Gen. T. Tilghman."

Of *Cattle*, there was quite a large number, and many very fine animals; but we think they were not, generally, in as good condition as what we

witnessed at the same place two years before. The mixed breeds were numerously represented, and were in a high degree creditable to the county. The splendid short horn bull Valentine was there in all his glory, having just been transferred to this new sphere of usefulness, by the liberality of E. T Paca, Esq., who purchased him from Col. Capron, at the late State Show. A young bull of Thos. Hughlett's, 14 months old, a well formed and fine animal, we notice, took, deservedly, the first premium for bulls under 2 years. Wm. H. Fairbanks also exhibited a young bull, of great size for his age, but not so well formed, to which was awarded the 2d premium. S. Hambleton, Jr., exhibited a beautiful heifer, 1½ years old, straight as an arrow, and of symmetrical form, to which was awardrd the first premium for heifers. Samuel H. Benny, Jas. N. Goldsborough, E. Kennard, and others, exhibited fine cows—the former bearing off the first and second prizes. Mr. Kennard's cow was a grade Durham; she had a calf in 1847, and has been giving milk ever since, till within a few weeks. M. Goldsborough also exhibited a handsome heifer. T. Tilghman, several very fair animals. Hy. C. Tilghman's spayed heifer, weighing 1,400 lbs., was well entitled to the first premium for the best beef. Wm. P. Leverton exhibited a number of fine *Mules*. There was a number of other mules on the ground, but we did not learn the names of the owners. Of *Horses*, there was a tolerable good show. Jos. R. Cook, of Q. Anne's, B. M. Bowdle, J. M. Martin, T. Tenant, T. Tilghman, Dr. E. M. Jenkins, B. C. Skinner, H. Edmondson, Jr., W. H. Harrison and E. N. Hambleton, were each awarded premiums. The display of *Poultry* was large, and of every variety; and although the exhibition may not have equalled, in extent, that of the State fair, yet, certainly, the specimens were not inferior in point of size, beauty and variety. The display of *Oxen*, as well as *Swine*, was limited.

Of *Agricultural Implements*, there was a fair display made by our townsmen, Maxfield, Mott & Co., and R. Sinclair, Jr. & Co. To the former was awarded a premium of $4 for their Delaware No. 7, as a flushing plough, price $8; and to the latter, $3 for their No. 6 Chenoweth, price $3.50, as the best seed plough; to the same, for their gang plough, a premium of $4; to do., for their subsoil plough, $3: for ox yoke, $1; and drill harrow, $2. To Maxfield, Mott & Co., $3 for the best cultivator, $4 for the best wheat fan, and $2 for their straw cutter. To M. T. Goldsborough, for a drag harrow, $2. To Jas. N. Goldsborough, $2 for Pearson's wheat drill. To Sinclair & Co., for fodder cutter and grinder, $4; horse power, $5; wheat thresher, $4; separator, $3, grist mill, $4; Goldsborough's patent corn sheller, $3; corn and cob crusher, $3; churn, $1; machine for cleaning clover seed, $3, and grain cradle, $1. A washing machine on the ground was exhibited by Brannon & Wingard, which attracted considerable attention, and is spoken highly of by the committee. Kelsey's bee hive was also exhibited, and received a favorable notice. Bombarger's wheat fan was on the ground, as was also the tilt wagon from Delaware. In the plowing match, S. H. Benny took the first premium of $6, with a Prouty & Mears centre draught plough; Wm. P. Leaverton the 2d, $4, with Maxfield, Mott & Co.'s No. 7 Delaware plough, and N. Martin, Jr., the 3d, $3, with the Beach plough. Negro John Blake, slave of S. H. Benny, ploughman, took the 1st prize, $3; negro Jackson, the 2d, $2, and negro Ned the 3d, $1. John W. Martin's negro man John, the first premium of $3 in the competition between the ploughmen who had taken the 1st premiums at former exhibitions; the ploughing done with Maxfield & Co.'s No. 20, Minor & Horton plough.

In the *Household department*, the display was very fine indeed, and evinced what great interest was felt by the fair daughters of Talbot in the success of their societies. We regret our inability to enter in detail the numerous specimens exhibited in every branch of domestic economy; they are worthy of being recorded in a permanent form in our pages, but our limits absolutely forbid our indulging in the realization of our desire to do so.

IMPORTANT SUGGESTIONS.—At the annual meeting of the Charles Co. (Md.) Agricultural Society, held on 31st October, the following resolutions offered by Dr. Francis Matthews, were adopted, and the following named gentlemen appointed the Committee, in compliance with the last resolution, viz: Wm. B. Stone, Geo. Brent, John Hamilton, Richard B. Posey and Dr. R. Fergusson:

1. *Resolved*, as the sense of this society, that the interest of the agricultural community require that wheat be sold in the markets of this State by the running struck measure, as Indian corn, rye and oats now are, and not by weight as at present.

2. That a preference ought to be given to all vessels freighting produce to market, that will carry our grain in bags, over those that only carry it in bulk.

3. That justice to the planting interest demands that in all future appointments of Tobacco Inspectors to the State Tobacco Warehouses, that the Executive confine such appointments to one inspector from each of the largest tobacco-growing counties.

4. That the law requiring produce commission merchants to obtain a license before they can sell our produce, ought to be repealed, since it has manifestly worked to the disadvantage of the planting and farming interest of this state.

5. That the State, and other Agricultural Societies of this State be, and are thereby respectfully invited to concur in the above resolutions, and co-operate with this in furthering and promoting the objects of them.

6. That the Senator and Delegates to the General Assembly from this county, be requested to exert their influence to obtain the repeal of the laws referred to in the 1st and 4th resolutions, and to urge upon the Executive the propriety of the 3d.

Resolved, That a Committee, composed of two of its members learned in the law, and of three farmers and planters, be appointed by the Chair to draft the form of a law embracing the objects of said 1st and 4th resolutions, and also to draw up a memorial upon the subject generally to be presented to the consideration of the General Assembly.

☞We are indepted to B. P. Johnson, Esq., Secretary of the New York State Agricultural Society, for a copy of the Transactions of the American Institute for 1848, and the first volume of the Documentary History of the State of New York. Also to Mr. Thomas S. Jones, of Baltimore county, for a copy of Arthur Young's celebrated work on Agriculture, in four volumes. These gentlemen will please accept our thanks.

THE AMERICAN FARMER.

BALTIMORE, JANUARY 1, 1850.

TO CORRESPONDENTS.—Communications from J. M. Duckett, Esq., G. W. Hughes, "H. M. P.," Sidney Weller, Northamptom, &c. have been received; some of them were in type for this No., but crowded out. A number of other original essays will, with the above, appear next month.

POSTAGE ON THE FARMER.—We have several times published the fact, that the Post-Master General has decided that the "Farmer," and all similar periodicals, comes under the denomination of a *newspaper*, and is subject to one cent postage to any part of the State—if *out* of the State, and more than one hundred miles distant, one and a half cent per No. If published on not more than two sheets of paper, containing together a superficial area of not more than nineteen hundred square inches, the above rates only can be lawfully charged. We, from time to time, hear of charges different from the above being made by some post-masters, which is wrong, and we hope our subscribers will resist the imposition, and insist on the post-masters obtaining the decision of the Post-master General. Although we frequently issue additional sheets, yet it will be found on measurement, that the number of square inches does not reach the amount specified by law, and consequently the postage cannot be beyond the rates specified above.

FINE VEGETABLES. — We have received from Messrs. E. J. Meany, of Kent Co., and W. C. Tilghman, and E. T. Paca, of Queen Ann's county, as fine specimens of the Cauliflower as we have ever seen—from the latter gentleman, and also from Messrs. Judson M. Duckett, of Baltimore county, and J. N. Smith, of North Carolina, mammoth table turnips—one from the latter, was raised on the fine lands of North Carolina, weighed sixteen pounds without the top, and measured forty-one and three-quarter inches in circumference—the land on which it was raised, was manured with marl and cotton seed.

From the editor of the Centreville Times, and from Mr. M. Cunningham's farm in Harford county, we have received samples of potatoes, which certainly are not inferior to any before seen the season, and we think a little larger.

From the gardener of Mr. Jas. G. Cox, a basket of fine vegetables, consisting of cauliflower, celery, lettuce, &c., which were found very acceptable with our Christmas turkey.

ON THE USE OF OXEN.—In a late number of Mr. Skinner's journal, appeared a letter from Mr. E. Stabler, on this subject, which we intend transferring to our pages. Mr. Whittlesey, in his able address at Rockville, took occasion to allude to this letter in strong terms of commendation. In the course of his remarks friend Stabler speaks of unloading hay by the aid of machinery, which we have no doubt, from what we have heard of it, will be found of much value to farmers extensively engaged in this branch of their calling, and we would feel indebted to the writer for a drawing thereof to accompany his letter, which we hope to publish in our next number.

AID TO AGRICULTURAL SOCIETIES.—The Governors of Virginia and South Carolina, in their recent annual messages to the Legislatures of their respective States, take strong ground in favor of aid to the developement of their Agricultural resources. We had prepared an article containing extracts from these messages, but have been compelled to omit the same. Governor Floyd, of Virginia, urges the appointment of an Agricultural Chemist. He also refers to the beneficial results which have flowed to New York and other States, where appropriations have been made for the purpose, and recommends to the Legislature to make a similar appropriation for a properly organized State Society in Virginia. "The annual appropriations of New York for this purpose, (says the Governor,) amount to about eight thousand dollars; and as far as I can learn, have given the greatest impetus to agricultural prosperity in all its branches."

The members of the Virginia, and also of the Ohio Legislature, have formed Agricultural Clubs, to meet during the session, similar to those which have for years been in existence in Massachusetts and other eastern States.—Perhaps the members of our legislature, at its present session, may be induced to follow so laudable an example.

President Taylor, in his late message to Congress, takes the following view of the claims of Agriculture upon the government:

"No direct aid has been given by the General Government to the improvement of agriculture, except by the expenditure of small sums for the collection and publication of agriculturalstatistics, and for some chemical analyses, which have been, thus far, paid for out of the patent fund. This aid is, in my opinion, wholly inadequate. To give to this leading branch of American industry the encouragement which it merits, I respectfully recommend the establishment of an Agricultural Bureau, to be connected with the Department of the Interior. To elevate the social condition of the agriculturist, to increase his prosperity, and to extend his means of usefulness to his country, by multiplying his sources of information, should be the study of every statesman, and a primary object with every legislator."

The Secretary of the Interior also takes an enlightened view of the same subject.

☞ We have seen a letter from Dr. Muse, and are requested to note its contents: The Dr. says that he "did not analyse the same specimen of Chappell's Fertilizer as was examined by Dr. Stewart, but one from a barrel which he had bought in the spring for manure."

THE GROWING WHEAT.—A letter from Hagerstown, Md. to the editor of the Farmer, says that the smooth wheat is full of the fly; and if they do not perish during the winter, serious consequences are feared. The writer says he rolled a field just before winter commenced, and has not found the fly in any of the plants in that field which the roller pressed, and intends, in the spring, to roll repeatedly, as he thinks it will answer the purpose of destroying the insects.

An Agricultural Society has been formed in Frederick County, Maryland, of which Gideon Bantz, Esq., has been appointed President.

THE SUGAR CROP.—*Important.*—The Washington *Union* learns from Gen. Harmanson, of Louisiana, that letters from that state declare that the sugar cane, reserved for seed, is mostly rotten and spoiled, and the crop will be only about half the ordinary yield, and the planters will be unable to provide a new supply of seed.

The editor of the American Farmer has received a letter from one of the most respectable planters at Iberville, La., confirming the above; the writer says that the prospects for the future are quite gloomy; it is feared that the plant has become permanently diseased, and that the sugar interest of Louisiana will be ruined. He adds:

"It seems to be a low of vegetable life that where plants are propagated for a succession of years from buds or eyes, that they lose the power of producing seeds, and ultimately deteriorate and become worthless. I have thought that if we could procure the grain from the East Indies, and plant it here, that it would be the best remedy."

DR. DANIEL LEE.—We are pleased to learn that this gentleman has received an appointment in the Agricultural Department of the Patent Office, at Washington. His business will be "to look after the agricultural matters now incidentally attached" to that branch of the government. A better appointment could not have been made. Dr. Lee is a gentleman of great learning, passionately devoted to the science of agriculture, to which he has devoted many years of his life; has the most untiring industry, and enjoys a deservedly high reputation as a writer, not only upon subjects connected with the pursuits of husbandry, but upon the whole range of the sciences. He has been for some years the editor of the *Genesee Farmer*, and made himself known far and near, by the power with which he conducted that excellent journal. Such was the reputation that he gained in the editorial chair of that paper, that he was called to *Augusta, Georgia*, to edit the *Southern Cultivator*, where he was residing at the time of his receiving his present appointment. No better proof of his vast capacity and untiring industry need be mentioned than the fact, that during his residence in the South, he contributed largely to the editorial columns of the *Genesee Farmer*, in the North, while he edited the *Southern Cultivator* in the South, with masterly skill, ripe scholarship, and excellent jndgment. His appointment at Washington, is the more honorable to him, as it was unsought by himself. He will continue his connection with the two papers we have named, and we look forward to see the broad impress of his great and discriminating mind upon the next *Patent Office Report*, and anticipate for the American husbandmen a rich and enlightened treat.

SOUTH DOWN SHEEP.—Three fine animals, a yearling ram and two breeding ewes, of this valuable breed, passed through town a few days ago on their way from the farm of Mr. Wm. B. Dobbin, in Howard District, in this State, to North Carolina where they have been purchased for the purpose of improving the stock of that State. They were in fine condition, and will do credit to the superior flock of Mr. Dobbin, whose care in breeding seems to be well repaid by gratifying success.

We should rather imagine that the peculiar excellencies of this breed of sheep would strongly commend it to the notice of Southern gentlemen desiring to improve their stock, and are always pleased to see any movement towards that end.

NATIONAL CENTRAL AGRICULTURAL SOCIETY.—At the late meeting of the State Agricultural Society, it will be recollected, a resolution was offered by Mr. Holcomb, of Delaware, and adopted by the Society, for the appointment of a committee to draw up an Address setting forth the advantages of this city as a central position for the holding of a great annual congress of farmers, and Exhibition of Cattle, Implements, Seeds, &c. The committee was announced in our last No., and will, we learn, meet in Washington city, early in the present month, in the performance of another duty which devolves upon it, viz: that of memorialising congress to take measures to advance the interests of the farmer, and for the creation of a bureau or department of agriculture. From one of this committee, Judge *Watts*, of Pa., the following letter has been received, which we have been permitted to publish, as evincing the right feeling in behalf of the important movement to which it specially alludes:—

CARLISLE, 18th Nov. 1849.

Chauncy P. Holcomb, Esq.—Dear Sir—I have been holding court for several weeks, which is my apology for not having sooner acknowledged the receipt of your acceptable letter and accompanying pamphlet.

I have long been convinced that practical agriculture does not keep pace with the improvements in other arts, and that science is doing less for it than for any other of the occupations of man: and this, I am satisfied, is not attributed to the absence of science, but the want of a diffusion of the knowledge of it. He therefore, who can devise a plan by which an enterprising spirit of improvement can be infused into the practical farmers of the country, will have done as much to benefit his fellow-men as any one who has gone before him. My own fondness of agriculture in all its branches, has induced me to make great exertions to advance its interests in this county through the medium of a society, and I am pleased to think some improvement has been attained, but it is greatly discouraging to perceive how few enter into it with spirit and zeal. I think, however, I perceive in the last year, more interest excited than formerly; and this I attribute to the fact that at our fall meeting of 1848, we resolved to furnish every member who paid for his annual subscription, with an agricultural paper. These papers are, I hope and think, working wonders. I would not dispense with county societies, although the labour and expense of keeping them up will always fall more heavily on a few, yet I would view them in addition to their own usefulness in a small sphere, as nurseries of large associations, to meet annually at some central point where competition may be excited to an extent that will diffuse its effects through every avenue which leads to the farmer's door. I could not suggest any central point better than Baltimore, for such a meeting, and I will be pleased to embark heartily in the plan which you have suggested at the State meeting of the Maryland State Agricultural Society. I think the effect of bringing the citizens of different states into competition with each other at an Agricultural Exhibition, would be productive of most profitable results.

Very respectfully,

FREDERICK WATTS.

LADIES' DEPARTMENT.

THE FLOWER GARDEN—JANUARY.

Prepared by John Feast, Florist, 279 Lexington st. for the American Farmer.

The beginning of the year is a time that but little can be accomplished in the *out-door* culture, except taking care that every thing tender or liable to be injured with the winter is carefully protected, as also frames where hardy plants are kept, as double violets, stock gilly flowers, heartsease, daisies polyanthus, carnations, pinks, hydrangeas, &c. Such as require separating, repot in suitable pots, and cleanse them from all decayed foliage that may have accumulated; give plenty of air, whenever the weather will permit, and protect at night with mats or shutters most suitable or best. In the *greenhouse*, at this time, to the lovers of Flora, and to all others, if they could but admire the beauties of Nature, only in a splendid bloom of Camellia Japonicas, varying, as they do, from the darkest scarlet to the purest white, which so often adorn the blushing bride, entwined with the *Jasmine*, *Pasiflora*, *Fuchia*, *Mignionette*, *Heliotrope*, *Violet*, and others so numerous, with the Rose, which are blooming at this time of the year, many a pleasant hour is enjoyed by those whose minds are led to the culture of flowers, and their care, that repays them for all the toil bestowed—and we are glad to find that so many have had attached to their dwellings a conservatory, stocked with choice plants, which is quite ornamental. It is also pleasurable to observe the loftiest trees, with the humblest plants, clothed with fruits of the choicest kinds, and giving out their odors, refreshing to inhale; and for the inexperienced to obtain a knowledge of the culture, is by applying the mind to the proper management, which is only acquired by practice, and at but a trifling expense, if a house is properly constructed and arranged by one of experience, giving instructions to the mechanic.

Many plants require care, as the time approaches for blooming, by being placed nearer the light, tieing up and cleaning, changing the water in the hyacinth glasses every other day, and putting them as near the front glass as convenient. They will thus bloom finer, and, when done, might be planted in the open ground; but they seldom ever recover after blooming in this way.

Now is a good time to prune roses in pots, by cutting the small weak wood out, and shortening the strong shoots, and tieing up neatly; also, repot those that require it, or top dress with good compost. *Cyclamens* may be repotted in larger pots, as they will be in bloom shortly. These should be in every collection, as nothing is more beautiful. They are very hardy, and, with a little attention, will stand our winters, in a suitable situation.

For the American Farmer.

A STORY OF THE BIRDS.

Last summer my sister came from the city with her family to pass a few weeks with us, and her carriage driver purchased of some boys in the neighborhood a nest of young American Mocking Birds. The young birds in their nest were placed in a cage which was hung upon a tree in the yard, and tho' they had been brought *the distance of a mile*, the old birds soon found their 'loved and lost ones,' though secured within the bars of a prison, and expressed great joy at the meeting. We all endevored to negotiate for their liberty, and tried to purchase them but in vain. The old birds now resumed their task of supplying them with food, boldly entering the yard, rendered fearless of danger through force of maternal and paternal love. The limb to which the cage was suspended, overhung a backbuilding, and a cat seeing the birds constantly there, crawled out, watched her opportunity, and struck the old, bird the father of the family, down. And now the widowed mother seeing the support of her helpless imprisoned little ones depended solely on her own exertions, seemed to redouble her efforts, her toil and labour. She was doubtless a mourner in her heart, and we fancied we could discover in her plaintive notes the grief that oppressed her. Again negotiations were resumed for their freedom, but the price was advanced to three dollars apiece, and the man seemed obstinately bent on keeping them. But it was pitiful to see the old bird panting and breathless in the hot summer days continuing her toil to procure them food, their increased size now requiring more sustenance.

At this time, by some means or other one of the young birds escaped through the bars of the cage, and after sporting about for a time, in the course of a day or two we saw him engaged with his mother in supplying food to his little imprisoned brothers and sisters. Day after day, and hour after hour, away they would go together, the widowed mother and her orphan boy, returning with what seemed a most grateful repast, and welcomed with the most joyous acclamations by the little prisoners.

But from the heat of the weather in their exposed situation, or because their owner had added some food that did not agree with them, one by one the young caged birds all died!

And now as thus "thrice flew the shaft, and thrice her peace was slain," the notes of wailing and woe were heard throughout the grove from morning till night. Poor bird! I pitied her—I pitied them both—but the mother! for what love equals a mother's, what grief like hers refuses consolation!

What a moral—what a text for commentary was here exhibited! nor did my own little fledgelings fail to feel an interest in the 'story of the birds,' which I have so often repeated to them. And how many such little incidents there are connected with our rural homes, from which to make us better and wiser as we "look through nature up to nature's God!"

May my sons love *liberty* and hate tyranny and oppression more, from remembering the fate of the imprisoned birds! and when I told them, it was something like the story of poor Louis Kossuth, they wanted to hear all about him, and in the course of the fireside lectures this winter, I shall tell them all about poor Kossuth, his devoted wife, and noble old mother, and of the *Russian Bear* who seeks their lives!

I don't know that you will think the columns of the "Farmer" is a proper place for a "story," but please to remember that farmers' wives and daughters take a peep into all the papers brought from the post-office, and we women, too often perhaps, think that the most *interesting* heading for an article is that which I have placed at the head of mine, "A Story," and then Mr. Editor, mine is an "o'er *true* story."

I have another little story to tell of the birds, provided you like this—for we live among the birds and *their* 'concerts' so cheaply enjoyed content us.

Delaware.] PORTIA IN THE COUNTRY.

WORK IN THE GARDEN.

There is very little to be done in any kitchen garden at this season of the year, which may not have the appliances of hot beds and frames; yet there are some things which should be attended to, which we will briefly note.

Clayey Beds.—If you have any beds or compartments in your garden composed of stiff clay, spread on a thick coating of manure, dig that in spade deep, and leave the bed in the rough, unraked, to be acted upon, and have the texture of the soil meliorated by the action of the frosts. In the spring, when the frost is out of the ground, give it a dusting of slacked lime; rake that in, and your bed will be in good condition to receive whatever vegetables you may design it for; and you will find it to have lost much of its native tenacity.

As the cost of a hot bed, where cotton is used instead of glass lights, as the receiver of the sun's rays, is but trifling, we would advise all who may be without this convenience to have a frame made with planks, higher in the rear by 6 inches than in the front; make a top to it, to be fitted on with either leather or iron hinges; cover the top with 10 cent cotton, stretched tightly over it and oiled. This makes a very passable hot bed frame, and will grow early plants nearly as well as one made with glass lights. It must be kept covered in bad weather with matting, or any other convenient substance, the covering to be lifted in good weather, when the sun is shining, in the middle of the day, for a few hours. A frame made of plank, 12 feet long, 4 feet broad, will raise all the plants required by a family, as cabbage plants, cauliflower, lettuce, tomatoes, egg plants, radishes, &c. Let about 12 inches of fresh horse dung be put in the bottom, and spread evenly, and, after a few days, spread upon the top of that 6 inches in depth of rich mould, rake it finely, and your bed is ready for the reception of your various kinds of seed. About the middle of February would be a good time to sow the seed.

There is no mystery either in the making or management of a hot bed. After the plants are up, air and gently water them in warm days, in the middle of the day; keep the frame covered of mornings and nights, and all that is necessary will have been done.

Those who place a proper estimate of the value of early vegetables can easily, at a trifling cost, construct these rustic hot beds, and enjoy the heartfelt pleasure of having provided their families with seasonable supplies of the most healthy luxuries that grace the table; and, surely, it would be a heart-pleasure to the heads of families to ensure its members such healthful enjoyment.

PATENT OFFICE REPORT FOR 1848.—We are indebted to our distinguished Senator, the Hon. Jas. Alfred Pearce, for a copy of the above work, as also to the Commissioner of Patents, the Hon. Mr. *Eubanks*. Each of these gentlemen will accept our thanks. The book is well filled with valuable agricultural matter, which always make it acceptable to us, as our predelictions all centre in whatever concerns the culture of the earth.

In casting our eye over the table of the *average* product in several of the wheat growing States, we perceive that the former Commissioner has set down the *average* for Maryland at 6 bushels to the acre; had this been said to be the *minimum* yield, it would have been much nearer the truth; for we are very certain, if its *average* was no more than 6 bushels to the acre, that it would have been abandoned as a staple years gone by, as our farmers could not afford to grow it at that yield. It may be a *misprint*, and we hope it is so.

We trust that the *Index* to the volume for 1849, will be made with more regard to *alphabetical arrangement* as to the subject matter referred to, than its predecessors, which, in their adhesion to *pages*, so jumble up things, that it is just as easy to find the thing wanted by thumbing over the leaves of the book, as to refer to the index. The great value of the contents of these reports, make us solicitous to see such an index compiled, as will be worthy of the book.

☞ A correspondent in Kent county, asks us for the cost of making the Wire Fence. Will our friends who have the information, impart it to our correspondent through the medium of our journal.

WATER RAMS.—At our solicitation, Mr. Cook, whose advertisement will be found on another page, has consented to operate in the vicinity of Baltimore. From information to be relied upon, we can confidently recommend Mr. C. as capable of giving satisfaction to those who may employ him.

METEOROLOGICAL TABLE,

From the 21st of November to the 20th of December

Kept at Schellman Hall, near Sykesville, Carroll County, Md.

Taken at 6 o'clock, a. m., 2 o'clock, noon, and at 6 o'clock.

	Wind.			Temperature			Remarks.
21	w	w	w	42	55	53	Clear
22	w	N	w	32	59	50	Frost, ice, clear
23	w	S	S	46	64	55	Cloudy, clear
24	S	S	S	51	68	60	Clear
25	S	S	SW	56	68	65	Rain, clear
26	S	W	W	56	56	52	Cloudy, rain, cloudy, clear
27	W	NW	W	33	48	36	Frost, clear
28	W	W	W	32	46	36	Frost, clear
29	W	W	W	27	41	35	Clear
30	W	W	W	34	50	40	Clear
1	W	SW	SE	30	54	44	Clear cloudy,
2	E	NE	NE	20	23	23	Snow 1-2 in., hail, rain
3	W	W	W	33	35	34	Rain, snow
4	W	W	W	35	45	34	Cloudy
5	W	W	W	34	49	35	Clear
6	W	W	E	36	44	30	Clear
7	E	E	E	26	29	31	Cloudy, snow
8	E	E	E	26	29	30	Snow and rain
9	E	E	SW	28	33	30	Sleet
10	E	E	E	38	34	30	Rain, snow 1-9 in.
11	W	NW	NW	25	31	22	Clear
12	SW	NW	NW	17	30	19	Clear
13	NW	W	E	15	27	23	Clear, snow
14	W	SW	S	26	34	33	Cloudy
15	S	S	S	30	36	31	Cloudy
96	S	W	S	33	40	30	Rain 2 in., cloudy.
17	W	NW	N	40	45	36	Clear
18	W	W	W	25	37	32	Clear
19	N	SE	SE	25	40	37	Clear
20	E	S	S	35	47	49	Rain 1 in., cloudy

The coldest day of the year 1849 was the 11th of January; the warmest day was the 21st of June.

REVIEW OF THE TOBACCO & GRAIN MARKETS.

Reported for the American Farmer by J. W. & E. Reynolds.

For the past month, the receipts of both Maryland and Ohio *Tobacco* has been very small, but the transactions, compared with the receipts, have been large, so that, at the present time, the stocks in first hands were never so small; and, although the stocks in the hands of the shippers, and now stored in the public warehouses, are large, as is also the stocks in Europe, yet, nevertheless, we consider the prospect ahead for good prices are better than it has been before since 1840; and whilst we have to congratulate planters upon the advent of "better times," we

would fain hope that the prospect of obtaining "living rates" will not excite them to cultivate a superabundance of the article, as they did a few years ago, and thereby reduce the price to less than half of what it can be really grown for. They may be assured that if they do this, the same cause will produce the same effects as heretofore, and the inevitable result must be *low prices*. If planters could be induced to turn their attention more to grain, and cultivate MIXED crops (we do not mean potatoes, beans and broom corn), confining themselves entirely to the *staples* of wheat, corn and tobacco, dividing their crops, as near as their lands and other things will admit of it, between these three, we have no doubt but that we should get remunerating prices for our tobacco, as in *days of yore*. We are glad to perceive that the few hogsheads of new crop already arrived is *very good*, as it regards quality. We have received several hogsheads which we have sold at prices ranging from 6¼ to $9¼, and sold some ground leaf, not wrappery, but fine, at 7 to $13. We earnestly hope these prices may not induce too great an effort, on the part of planters, to force their crops into market, not well "conditioned," causing it to be condemned, and thereby injuring themselves more than by getting lower prices. These remarks are always written in great haste, and may not suit the views of all, but the planting interest may be assured that their interest and the writer's own are, in every respect, the same, and he cannot recommend any policy which would injure the planter, unless he were also to injure himself.

We quote common dark crop and second tobacco at 2½ to 3$; good crop, 3½ to $5; good and fine reds, 5¼ to $9; ground leaf, 3½ to $5 for ordinary, and 5½ to $12 for fine and very fine.

Wheat is going at 95 to $1.04 for reds, and 100 to $1.06 for white; ditto for family flour (very scarce), $1.15. *Rye*, 56. White *Corn*, 46 to 50; yellow, 50 to 53; and these rates for new corn, according to the order. *Oats*, 28 to 31.

Flour, $4.68a4.75 for Howard street, and 4.75 for City Mills; Pa. rye flour, $3.37; corn meal, 2.87a $3; cloverseed, good old, $4.50; good new, $4.75; flaxseed, 1.33; hay, country, $12 per ton; in bales, $10a12; molasses, N. O., 27½a28; rice, 3.25a3.50 per 100 lbs; sugar. N. O. 5a5.75; whiskey, 27a28; hogs, live, 5a5.12—demand good, and supply limited; cattle, beef, 2a2.50, on the hoof, equal to 4a5.75 net, and averaging $2.75 gross.

Of *Guano*, there will be a supply in time for spring, and prices will range, probably, at about same rates as last fall.

Foreign Markets.—The steamer Cambria arrived at Boston on the 29th ult., brings European dates to 15th Dec. The news, in a commercial point of view, is highly important. Cotton has advanced one-fourth of a cent on most American descriptions. Breadstuffs were firmer, with an advance in Indian Corn of 1s. to 1s. 3d. A slight improvement had taken place in American securities.

SHEW & MARKS'
DAGUERRIAN GALLERY,
117 *Baltimore street.*

HIGHEST PREMIUM AWARDED at the late *Fair of the Maryland Institute*, for the BEST DAGUERREOTYPES exhibited.

☞ Likenesses accurately taken in any weather, for Lockets, Signet Rings, &c., and satisfaction guaranteed in all cases.

☞ Paintings and Engravings correctly copied. jan1

BONE-DUST AND POUDRETTE ESTABLISHMENT.
On Harris' Creek, at Canton, Baltimore.

THOMAS BAYNES, continues the manufacture of *POUDRETTE*, and is prepared to supply any orders for the same—The article manufactured by him, will be found probably more valuable than any made in the Eastern cities. His *BONE-DUST* weighs from 55 to 60 lbs. to the bushel, and is as fine as any article sold in this market. Price of Bone Dust, during the winter months 50 cents per bushel. Poudrette, $1.20 per barrel. Persons sending their carts or wagons to the factory, can obtain the Poudrette at 20 cents per bushel.

☞ Any orders left at the factory, or with Mr. S. SANDS, editor of the "*Farmer*," at the State Agricultural Society's Rooms, will receive immediate attention. Terms, cash.

jan1-tf.

LAND FOR SALE.

THE subscriber offers for sale THREE HUNDRED ACRES of Land, in Westmoreland county, Virginia. This land lies immediately upon the Nomoni river, is of good soil, and possesses every possible advantage for improvement. Upon the farm upon which the subscriber resides, there is an inexhaustible deposite of oyster shells, to which the purchaser will have free access for all purposes of manuring; and the distance to haul the shells would not exceed one and a half miles to the farthest portion of his land. There is a plenty of Woodland attached for all purposes of the farm, and an abundance of scrap wood, to burn lime enough to manure the whole body of arable land.

There are "no improvements" upon the premises, but a most beautiful situation for a dwelling. This situation is remarkably healthy—much more so than is usually the case in the "tide water" section of Virginia. Terms, $3,000, with any indulgence, by securing the money, and paying interest. *All communications post paid.* Address

LANDON C. BERKELEY.
Rice's Store P. O., West. Co., Va. d 1-4t.

PLOUGHS! PLOUGHS!!

The subscriber is manufacturing Ploughs of various patterns and of different sizes; also Wheat Fans, Cylindrical Straw Cutters, Corn and Tobacco Cultivators, CORN SHELLERS, &c. Also,

THRESHING MACHINES and HORSE POWERS—these latter are used by the following gentlemen, to whom reference is made, as to their superior value, viz: Messrs. T. Beard, The Beard, Dr. Watkins, J. T. Hodges, T. Welsh, W. Mackall, J. Inglehart. A. Sellman, R. Sellman, W. Hopkins, J. Kent, Geo. Wells, Geo. Gale, Dr. Fenwick, A. Franklin, J. C. Weems, of Anne Arundel county; G. W. Weems, J. T. Barber, R. B. Chew, W. Boswell, Y. Howes, of Calvert co., Md. Agent of Evans Davis, Baltimore co. for sale of the woodcock Plow.

Pennsylvania Grain Cradles. CHAS. H. DRURY.
Gillingham Alley, entrance from Howard-st., near Pratt, mal and store, Hollingsworth-st. corner Pratt.

PIERSON'S IMPROVED WHEAT DRILL. Price, $100.
For sale by E. WHITMAM, Jr.,
oc1 55 Light street, Baltimore, Md.

Baltimore Fire Insurance Company.
No. 24 South Street, Baltimore.

THIS old established Company (incorporated by the legislature of Maryland, 1807,) continues to *INSURE AGAINST LOSS OR DAMAGE BY FIRE*, in the city or country, on the various descriptions of property: On Farms, Barns, Granaries, &c.—on Dwelling Houses, Storehouses and Warehouses,—on Merchandize—on Country Produce—on Household Furniture—on Vessels Building, on Vessels in Port, and on Cargoes, &c. &c.

The Board of Directors is composed of the following gentlemen:

J. I. COHEN, Jr., President.

William Frick,	David S. Wilson,
Robert A. Taylor,	Wm. F. Worthington,
William G. Harrison,	Jas. A. Sangston,
Samuel T. Thompson,	William Gilmor,
George R. Vickers,	J. Pennington,
F. W. Alricks,	Joseph King, Jr.
S. Owings Hoffman,	

☞ For forms of application, and any other information, apply at the office, No. 24 SOUTH STREET, where all cases are immediately attended to. Insurance can also be effected for any length of time that the applicant may desire.

***Applications for insurance in the country can be made by letter direct, or through the medium of correspondents of the party, residing in Baltimore. Answers can be promptly given, with all relative information which may be desired. Letters to be addressed to

FRED'K WOODWORTH, Sec'y.
Baltimore, September, 1849. sep 1

To Planters, Farmers, Mill Owners and others.

MURRAY & CLARK,
MILLWRIGHTS AND MACHINISTS,

RESPECTFULLY inform the public that they are now established in BALTIMORE, MD., AND ELIZABETH CITY, N. C., and are prepared to furnish all kinds of MILL-WORK, HOISTING MACHINES, CRANES and AGRICULTURAL MACHINERY, at the shortest notice, and as cheap as can be got elsewhere, such as Mill Patterns, Mill Castings, Wrought Iron Work, Brass Castings and Agricultural Machinery, such as Horse Powers, for all purposes, Thrashing Machines, Portable Grist Mills for hand or power, Grain Fans; Straw, Hay and Fodder Cutters, for hand or power, Corn Crushers, for hand or power, Grind Stones, Picks, Mattocks, Grubbing Hoes, Axes, Wrought Plows, and Plow Castings, also the far-famed PETTIGREW CORN SHELLER, improved by Murray, that will shell from 300 to 700 berrels of Corn per day, and would refer to the following gentlemen, who have them in use.

Perquimans Co, N. C.—Edmond B. Skinner, Benj S. Skinner, Francis Nixon, Col. James Lee, A. C. Toms, H. N. Mabane, Thomas Newby, Dr. C. M. Ford, James M. Sumner, Esqrs.

Halifax, N. C.—Thomas P. Devereux, David Clark, Esqrs.

Pasquotank Co, N. C.—William Glover, William H. Davis, Joseph H. Pool, John C. Barnes, George D. Pool, Robert Pendleton, Thomas F. Banks, William Charles, Edmond Perkins, James E. Weeks. Mark S. Sawyer, Thad. F. Banks, James L. Mullen, Esqrs.

Chowan Co, N. C.—James C. Johnston, Thomas D. Warren, Aug. Moore, Joshua Skinner, Esqrs.

Bertie Co, N. C.—John Devereux, Esq.

Camden Co, N. C.—W. N. Gregory, Major Gregory, Wm. R. Abbott, Dr. F. N. Mullen, Esqrs.

We here take pleasure in giving the following Extract of a letter received on the 29th of September, 1849, from Thomas D. Warren, Esq., Endenton, Chowan Co., N. C.

DEAR SIR:—Your letter asking my opinion as to the performance of the *Horse Powers and Thrashers*—furnished me by you, was duly received; in answer, I am happy to say that they are very excellent Machines, and deserve all the praise that I can bestow upon them. The principle of the powers is good, and combines great velocity with easy draft—is simple and easily adjusted, which is a great disideratum to a farmer. I am highly pleased with their performance, and give them preference to any I have ever used or seen. As to Fans—I have one from Baltimore, one from New York, and several others, but none are equal to the one sent me by your partner, Mr. Clark. I shall order more from him of the same sort.

With respect, &c., I am yours,
THOS. D. WARREN.

MURRAY & CLARK:—The Fan spoken of above, is one of the same pattern that Mr. Hathaway wrote to us of, as having cleaned one thousand bushels of Wheat within one day.

The following is handed to us by Mr. A. W. Willett, who is now operating with two of our Powers and Thrashers.

DEAR SIR:—In answer to your inquiry about Machines, we would respectfully say to all those that are in want of Machines, that yours is the best we have seen—as it does not break the grain—leaves the straw in good condition—works easy, and thrashes as clean and as fast as any we have seen—and for durability, there is none better made.

Respectfully yours,
G. MYERS, JR.

JOHN CONNELLY, Manager for Capt. McBlair, HIRAM HAUFMAN, MOORE and HOOVER.

MR. A. W. WILLETT: *Baltimore, 2d Oct.*, 1849.

Sir:—In reply to yours of 25th inst., I have much pleasure in stating that the thrashing done for me was highly satisfactory; the performance of your Machine appeared to be perfect.—Should I have more thrashing to do, and you were able to attend to it, I should employ you to do it.

Yours respectfully,
H. GELSTON.

Baltimore County, Md., Oct. 2d, 1849.

Having witnessed the operation of Mr. A. W. Willett's Threshing Machine, I take pleasure in recommending it to any who may wish to employ or purchase such a Machine. This Machine made by Messrs. Murray & Clark, was employed by me for something less than two days and a half in getting out a crop of oats. In my judgment it performed its work thoroughly, and with sufficient rapidity—almost without friction, and what is unusual, without very little noise. The arrangement of the teeth is such as to prevent their flying out and endangering the men when any of them are broken by the accidental introduction of small stones or other hard substances.

SAML. McCULLOH, JR., M. D.

About the *Hand Corn Shellers* which received the Premium at the late Fair of the Agricultural Society, that will shell and seperate 50 barrels of corn per day, we would refer to the following gentlemen who have them in use. Joseph B. Pool, William Crawford, Joshua Stewart, William Temple, Esqr., of Pasquotank County, N. C. and Nathan Halstead, Esq., of Camden County, N. C. A great number of these Shellers have been sent to Savannah and other places.

About *Portable Mills*, which we Manufacture for the different purposes of Grinding Wheat, Corn, Rye, Oats, Sugar, Coffee, Salt, Salt Petre, Red Lead, Chrome Ore, Magnesia, Alum Clay, Tartaric Acid, Cream Tartar, all kinds of Spices, Paints, Plaster, Coal and other purposes. The following gentlemen have them in use in the City of Baltimore. Mr. P. E. Cappell, Mr. William Davison, Baltimore Eagle Works, J. Stabler & Co., Messrs. Richstine, Mr. Vanness, Mr. McNeal, Messrs. Powell and Rimby. The largest of this kind of Mills is now in operation by Steam Power at the Junction of the Macon and Georgia Rail Road, Grinding Corn and Wheat.

We also Manufacture superior *Bone Mills*, and would refer to P. S. Chappell, John Kettlewell and Wm. Davison, Esqs.

Having served regular Apprenticeships to the Millwright Business, we feel assured that we can give perfect satisfaction to all who may favor us with their custom, either by day work, or in the performance of contracts, and will warrant all Grist, Saw, and other Mills, &c., propelled by Water, Steam, Wind or other Power, planned and erected by us, to operate well. Mill Work or other Machinery repaired at the shortest notice.

Nearly all the above gentlemen are acquainted with us as Millwrights. All orders thankfully received and promptly attended to.

MURRAY & CLARK, MILLWRIGHTS & MACHINISTS,
No. 21 York street, near Light st., Baltimore.

Nov. 1, tf.

CHICKERING'S PIANOS.

THE subscriber is sole Agent in Baltimore, for the sale of Chickering's celebrated IRON FRAMED GRAND & SQUARE PIANO FORTES, and is constantly receiving supplies from the factory in Boston, which are sold at the same prices as charged by Mr. Chickering.

Chickering's Pianos are unquestionably the best Instruments manufactured in the United States. In regard to superior quality of tone, touch, durability, and all the essential qualities of a Piano, they are admitted by the most eminent Pianists to be equal to Erard's, of Paris, or Broadwood's, of London. Although there are several factories in Boston and New York of high reputation, Mr. Chickering undoubtedly stands at the head, possessing eminent talent, skill, unceasing industry and experience of some 35 years as a manufacturer of pianos, with abundant means to enable him to carry out his plans in producing the very best instruments.

Orders from the country, entrusted to the subscriber, either for Pianos, Music or any article in his line of business, will be faithfully executed.

F. D. BENTEEN,
181 Baltimore street.

oct-6t

AGRICULTURAL IMPLEMENTS.—LABOR SAVING MACHINERY.——*GEORGE PAGE*, Machinist & Manufacturer, Baltimore st. West of Schroeder st. Baltimore, is now prepared to supply Agriculturists and all others in want of Agricultural and Labor-saving MACHINERY, with any thing in his line. He can furnish Portable Saw Mills to go by steam, horse or water power; Lumber Wheels; Horse Powers of various sizes, ranging in price from $85 to $200, and each simple, strong and powerful. His *Horse Power & Thrashing Machine* he is prepared to supply at the low price of $125 complete: the Thrashing Machines without the horse power, according to size, at $30, 40, 65 and $75; Improved Seed and Corn Planter, Portable Tobacco Press; Portable Grist Mills complete, $25.

LIME.

THE subscribers are prepared to furnish Building and Agricultural Lime at the depot on the Back Basin, corner of Eden and Lancaster-sts., which they will warrant to give satisfaction, it being burnt from pure Alum Lime Stone, equal to any found in the United States. Orders may be left with WILLIAM ROBINSON, No. 15 Hollingsworth-street, near Pratt.

feb. 1-tf. BELL & ROBINSON City Block

DUVALL & IGLEHART,
GROCERS AND COMMISSION MERCHANTS
No. 78 LIGHT STREET WHARF,

Invite the attention of their friends, and the public generally, to their large and general assortment of GROCERIES, embracing every *article* in that line of business, and which they will sell upon pleasing and liberal terms, and at the lowest prices. Any one in want of any article in their line will find it to their advantage to give them a call. *They will also pay particular attention to the sale of all kinds of produce.*

Baltimore, October 1, 1849.

AGRICULTURAL MACHINYRE FOR FALL AND WINTER USE.

R. SINCLAIR, Jr. & Co.

No. 62, LIGHT STREET, BALTIMORE,

OFFER FOR SALE, the following *IMPROVED MACHINERY*—viz:

Sinclair & Co's CYLINDRICAL STRAW CUTTERS—*warranted*—the most perfect machine of the kind in this country—there are 4 sizes made and constructed, both for manual and horse power.

Sinclair & Co's CORN STALK CUTTERS with Lacerators attached, which reduce the stalk and fodder to the finest state for stall feeding.

Common STRAW Cutters of various sorts and at low prices.

Sinclair & Co's VIRGINIA CORN SHELLERS, made to be worked by hand or horse power; capacity 1000 bush. pr. day.

Sinclair & Co's Columbiad, Goldsborough, and Atlee CORN SHELLERS, for horse power—capacity 1000 to 1500 bushels per day.

Sinclair & Co's Eagle Corn Sheliers, made with single and double spouts, for hand power—capacity 150 to 250 bushels.

Sinclair & Co's single and double Iron spout Corn Shellers,—a new and excellent machine for hand power—capacity same as the Eagle.

Sinclair & Co's CORN & COB CRUSHERS—a most valuable and perfect machine, price $30, and capacity 80 bushels per day. ☞ This machine is also admirably adapted for crushing corn, oats, &c. for stall feeding.

Sinclair & Co's HORSE POWERS, 4 sizes, and made for 1 or 12 horse power.

Sinclair & Co's Rail way or Endless Chain Powers, made with late valuable improvements.

Sinclair & Co's Improved Threshing Machines, 4 sizes.

—ALSO—

Wheat Screens,* Corn and Wheat Fanning Mills, Field Rollers, Clover threshing and cleaning machines, Plows for flushing, seeding, &c. A large and superior assortment Sausage Cutters and Stuffers, Plow and Machine Castings, and in store almost every Plow, Agricultural Machine and Tool wanted by the farmer. The assortment of

FIELD AND GARDEN SEEDS,

Now in store, is not surpassed for extent, variety or quality, by any seed establishment in this country.

SINCLAIR & CO.

dec] *Agricultural Implement Makers and Seedsmen.*

*The Wheat Fan we now make has undergone very important improvements, and so constructed that they not only chaff with great rapidity, but cleanse the wheat entirely from all weed seeds, and put it in the finest order for market or seed.

FARMERS who are in want of the best *THRESHING MACHINES*, will please notice that the First Premium of $10 was awarded to E. Whitman's *WROUGHT IRON RAILWAY HORSE POWER.* Not less than 5000 of these Powers are now in use for driving various kinds of Machinery. As evidence of the superiority of these machines, it is well known that manufacturers who strenuously opposed them for many years, are now trying to deceive the public with a spurious article, made by inexperienced men to imitate mine, but they are imperfect and entirely a different article from the original. E. Whitman's Wrought Iron Railway Horsepower, which can only be had by applying direct to

E. WHITMAN, Jr., cor. Light and Pratt streets, Balt. dl

FARMERS who desire to procure the best and most approved Farming IMPLEMENTS, will please notice that, at the Maryland State Fair, held in Baltimore, October, 1849, the first *Premium* of $20 was again awarded to me for the largest and best display of Agricultural Implements. This being the largest and best display of implements ever exhibited in the United States, I feel much honored by the award of such a premium, and shall hope to satisfy all who patronize me that the committee came to a just conclusion in the above award.

E. WHITMAN, Jr.,
dl Cor. Light and Pratt sts., Baltimore.

WHEAT FANS,

WARRANTED superior to any in the United States, and have also been introduced in England, with great success. We have all the sizes of

Bamborough's Premium Wheat Fan	
Grant's	"
Rice's	"
Strong's	"
The Boston	"
Clinton and other	"

Prices, from $20 to $40. E. WHITMAN, Jr. dl

FOR SALE—100 bushels of BONE SHAVINGS—by

R. BALL,
feb1-tf East Falls Avenue, near the Bridge, Baltimore.

☞2000 PREMIUM PLOUGHS on hand and for sale by the subscriber.

Prouty & Mears' Plough,	all sizes,	
Ruggles, Nourse & Mason's Plough,	do	
Minor & Horton	do	do
Eagle	do	do
Moore & Chamberlain	do	do
Wiley	do	do
Davis	do	do
Chenoweth	do	do

dl E. WHITMAN, Jr.

☞500 Whitman's Premium Patent CORN SHELLERS will be offered for sale this fall and winter;

all of which are made by him, and guaranteed to shell cleaner and better, and break less corn, than any other sheller now in use. Retail price of single Sheller, $10; double, $15, $17 and $18. Also, the old fashioned Plate Sheller, $16; the Virginia Sheller, $30; Smith's Sheller (large size), $60. For sale by E. WHITMAN, Jr. dl

CHESTER PIGS.—3 pair full bred Chester Pigs, 3 to 4 months old, out of very superior stock, and very fine animals. Also, 2 pair 3-4 Chester and 1-4 Berkshire, same age. Price, $15, delivered in the city.

RAM LAMBS—3-4 New Oxfordshire, 1-4 South Down and Bakewell, last spring's lambs; price, $15 each. Also, a Buck, 1-2 New Oxfordshire, 1-2 South Down; and 2 do., cross of New Oxfordshire and Bakewell, same age and price. Apply to S. SANDS, at this office. jan1

Albion Life Insurance Company.

LONDON, NEW YORK AND BALTIMORE,

Was Instituted in 1805,

WITH A CAPITAL OF $5,000,000.

Example of Rates of Insurance for $100.

Age next birthday.	For one year.	For seven years.	Life without profits.	Life with profits.
25	98	1 03	1 92	2 17
30	1 06	1 13	2 19	2 48
35	1 18	1 25	2 55	2 88
40	1 31	1 44	3 00	3 38

Insurances are undertaken by the Company at all ages, from 10 to 74, and to any amount not exceeding $15,000, nor less than $500 upon any one life. Persons may reside in the Southern States or West Indies all the year by paying extra.

Prospectus with rates, and every information, can be had on application to the agents. GUEST & GILMOR,

jan1 tf No. 50 S. Gay street, Baltimore.

SPLENDID COLORED DAGUERREOTYPE PORTRAITS.

By C. W. PURCELL, (late operator for *Broadbent & Cary,*)

No. 128 BALTIMORE STREET,

Over the American Office, and adjoining the Farmer Office.

HAVING a thorough knowledge of all the latest improvements in this beautiful art, Mr. Purcell feels a confidence in assuring the public that all pictures taken at his establishment shall combine a most correct likeness with the highest artistical skill. He will undertake to give the fullest satisfaction, or no charge will be made.

Ladies and gentlemen are requested to call at his rooms and examine his specimens. sep 1-1y.

A. G. MOTT,

MANUFACTURER OF PLOWS, HARROWS, CULTIVATORS, GRAIN CRADLES, WHEAT FANS, CORN SHELLERS, CYLINDRICAL STRAW CUTTERS, &c. &c.

☞ Plow Castings, of the New York composition chilled metal, always on hand, and old implements repaired, at No 8 ENSOR STREET, adjoining the Bel-air Market, Baltimore.

Jan1

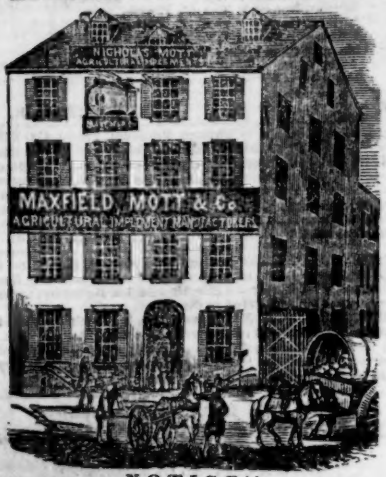
WATER RAMS.—The undersigned will put up Water Rams on the farms of gentlemen in the vacinity of Baltimore, and guarantee their performance. Rams of his construction, can be seen on the farms of Messrs. Wm. Jessop, Wm. Tagart, John Merryman, N. R. Merryman, E. P. Horn, Joshua Cockings, Dr. Tyson, Rider, and others, of Baltimore County, Md.; all of whom can testify to the correctness of the principal, and the value of the machine. All communications, or information upon the subject, will be promptly attended to.

JAMES COOK,

Chatham Post Office, Chester County, Pa.

☞ Further particulars can be obtained of the Editor of the American Farmer, where orders may be left. 1t

NORTH-WESTERN REPOSITORY!
OF
AGRICULTURAL IMPLEMENTS!!



NOTICE!!

HAVING attended several County Fairs, and also the great State Fair, we deem it our duty to notify the farmers generally, of the success with which we have met, and in order that they may not be deceived in supposing that we attended those in which our name was not mentioned—we will, therefore, name those at which we were present, viz:

1st—The Montgomery Co. Fair, held September, 1849.
2d—The State Fair, held in Baltimore, October, 1849.
3d—The Talbot Co. Fair, held in Easton, Oct. & Nov. 1849.

LIST OF PREMIUMS RECEIVED.

1st Premium of $20, for best display of Implements.
1st do for best constructed plough, both 1 and 2 horse.
1st do do Ploughing.
1st do do Straw Cutter.
1st do do Cultivator—something new.
1st do do Harrow.
1st do do Fans.

Being experienced men in the various practical parts of the business, we think ourselves well qualified to give satisfaction—we warrant our work to be of the best materials and workmanship, and only request a call, in order to convince the farmer of the truth of the assertion.

☞All orders promptly attended to, and Implements delivered to any part of the city free of charge.

MAXFIELD, MOTT & CO.
No. 97 North Paca street, Baltimore.

CORN SHELLERS—CORN SHELLERS.

MAXFIELD MOTT & CO. call the attention of the farmers to their large and extensive stock of CORN SHELLERS, of various patterns and capacities, which they will be pleased to furnish on the most reasonable terms.

MAXFIELD, MOTT & CO.
jan1 No. 97 North Paca st., 3 doors S. of Franklin, Balt.

STRAW CUTTERS.

SMITH'S new and superior STRAW CUTTER, which, for durability, simplicity and price, cannot be surpassed. Also, the Cylindrical Box, for cutting straw, hay or fodder, so favorably known to the public. Kept constantly on hand by

jan1 MAXFIELD, MOTT & CO.

HAVING completed our arrangements with several of the best Nurseries in the country, we are now prepared to furnish both Fruit and Ornamental TREES, of the most choice and select varieties.

All orders for Trees of any description promptly attended to.

MAXFIELD, MOTT & CO.
jan1 No. 97 North Paca st., 3 doors south of Franklin.

AN OVERSEER, who would make himself useful to his employer, would find an eligible situation on application at this office. One who has a knowledge of the improved modes of farming preferred; to such a liberal salary will be given for the first year, and an increase in subsequent years. He is wanted to go to North Carolina. jan1-1t

"CHAPPELL'S FERTILIZER."

EXPERIENCE has shown that this article should be applied *early*, as a top-dressing, on Wheat, Clover, &c., from January to middle of March, before the land closes in the spring, and also to have the advantage of the early rains. If applied in this way, the increased yield of grain will fully or more than repay for the outlay, besides the additional clover secured by its use.

Farmers who have "winter-ploughed" their land, preparatory to a second ploughing in the spring, for corn or oats, will find it to their advantage to apply a *full dressing* of the "Fertilizer." If applied early, they secure the solution of the salt in the earth, and thus avoid the danger, to some extent, of a dry season.

I have received very satisfactory accounts from those who used it on *wheat*, this season; the indications, so far, are very favorable for a *large increased yield*, ascertained, in many cases, by leaving "*a land*:" *the difference* is very perceptible.

I am prepared to furnish orders for the article, as faithfully as ever; and, having increased my facilities for obtaining the materials out of which it is compounded, and improved machinery, to secure a finer division of the particles (thus making them more soluble), I consider the article to be "better than ever," and, under "circumstances" favorable to the action of *guano or any other manure*, it can be applied with *great profit* to any crop, and *as universally* as any other manure, to any soil.

P. S. CHAPPELL,
Office (up stairs), Corner of Hanover and Lombard sts.

☞ *Every barrel is stenciled* "CHAPPELL'S FERTILIZER." *none other is genuine.* jan1

BONE DUST.

THE subscriber is prepared to furnish Ground Bone, at short notice, at his establishment, at Canton, opposite Brines' Distillery, below the race course, or orders can be left at his residence, corner of Happy Alley and Eastern Avenue. A sample is left at the Agricultural Society's hall, where it will be shown by the editor of the American Farmer, with whom orders can be left. Col. W. W. W. Bowie, of Prince George's, who has used it, writes as follows; "I was highly pleased with your bone dust; that at 50 cts. per bushel was the best I ever saw; that at 35 cts. was very fair for the price.

jan1-1t* JOSHUA HORNER.

TO MILLERS.

FROST & MUNROE'S BRAN DUSTER.

BY the use of one of these Dusters, there can be from 3 to 4 barrels additional of flour saved in each hundred ground. Certificates, from different mills, of its utility can be obtained. Millers wanting one of the above valuable machines, can be supplied at short notice, and, in every case, satisfaction is *warranted*. Price, $150 to $300, according to size. For further information, address the subscriber, or call at No. 80 Light street wharf, Baltimore.

N. B. State and County Rights for sale—a rare chance for speculation. [jan1] WM. A. WRIGHT, Proprietor.

A Strawberry Roan Short Horn DURHAM BULL for sale, 2 years old last spring. This is a beautiful bull, and will be sold at a low figure, if immediately applied for. He can be seen at the farm of Mr. C. F. Williams, Green Spring Valley, near Pikesville. Apply, for further particulars, to S. Sands, office American Farmer. jan1-1t

KENTISH & CO.'S PREPARED GUANO for sale, in any quantities, at New York prices, by

f E. WHITMAN, Jr.

NOTICE.—Mr. John P. McElderry, Camden street, is Agent for the sale of Murray & Clark's MACHINERY.

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